The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1750.—Vol. XXXIX. LONDON, SATURDAY, MARCH 6, 1869. {STAMPED .. SIXPENCE, UNSTAMPED..FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

Mr. CROFTS transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

Tin has risen this week £10 per ton, making, with last week, an advance of £14 per ton, and there is every probability of its rising higher. At the GREAT ROYALTON TIN MINE (Roche, Cornwall), in 4096 shares, 4 tons of tin will be raised per month, at a total cost of £30 per ton. Black tin is now close upon £80, which will give a profit of £50 on every ton raised. The shares at present are 10s., and they will shortly rise to double this price. The mine is situated at the head of the celebrated Goss Moors, from which millions worth of tin have been raised.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, has FOR SALE the following shares, free of commission :—

50 Anglo-Brazilian (call paid), 10s. 6d.
50 Crelake.
100 Chontales, 23s. 9d.
10 Chiverton, £3¾.
50 DonPedro, £3 16 3 pm.
15 East Lovell, £9½.
10 East Caradon, £8¾.
50 E. Carn Brea, 6s. 9d.
50 East Snaefell.
30 E. Gronville, £4⅛.
25 Frank Mills, £3 18 9
100 Frontino, 12s. 6d.
25 Gt. No. Laxey, 31s 9d
15 Great Laxey, £19½.
50 Gen. Brazilian, 12s 6d
5 Great Vor, £15⅝.
50 Gonamena, 20s. 6d.
15 Marke Valley, £9.
30 New Lovell, £2 18s 9d
5 North Levant, £9¾.
50 No. Treskerby, 17s 9d
100 Prince of Wales, 24s 9
50 Pestarena, 26s. 3d.
35 Port Phillip, £1 18s 9
15 Penhalls, £5½.
50 Rossa Grande (£1 fully paid), 33s.
50 Redmoor.
100 Royalton, 28s. 3d.
35 South Darren, 36s. 6d.
100 Snaefell, 11s.
25 So. Condurrow, 26s.
50 Taquaril, 11s. 3d.
5 Tincroft, £18½.
20 Tamar Valley, 13s. 6d
20 Wh. Grenville, 48s.
50 West Maria and Fortescue.
5 Wh. Mary Ann, £21.
5 W. Chiverton, £52¼.
2 West Seton, £205½.
1 Wheal Seton, £72.
15 Wheal Uny, £4 7s. 6d

BUYER of West Godolphin, West Rose Down, and Great Laxey, at market prices.

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO.,
STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. S. GOMPERS, JUN., STOCK AND SHAREDEALER,
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
Mr. GOMPERS strongly advises the purchase of East Caradon shares.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.

Has BUSINESS in—

5 Wt. Chiverton, £52½.
20 Chiverton, £3¾.
20 East Caradon, £8¾.
20 Great Vor, £15¼.
50 Prince of Wales, 24s 6d
50 No. Treskerby, 18s.
20 East Grenville.
20 Uny, £4 6s. 3d.
10 East Lovell, £9.
20 North Jane, 10s.
50 Chontales, 24s.
50 Taquaril, 4s. 6d. pm.
50 Don Pedro, £3⅞ pm.
100 Crebor, 12s. 6d.
2 West Tolgus.
50 So. Condurrow, 25s 6d
5 Mary Ann, £20.
50 Mary Florence.
50 Drake Walls, 21s. 6d.
50 W. Drake Walls.
50 Lovell Consols.

WHEAL MARY FLORENCE.—This mine is rapidly improving, and the results are certain. For further particulars apply to J. H.

BUYER of Lovell Consols, Crebor, East Grenville, Grenville, and Prince of Wales. Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.
Fifteen years' experience in Cornwall and London.

SPECIAL BUSINESS in Botallack, Boscean, South Condurrow, North Treskerby, Margaret, Rosewall Hill, and New Lovell.

J. H. C. should be consulted on any of the above mines at once.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS in West Godolphin, Summer Hill, North Pool, South Condurrow, South Merllyn, New Lovell, Great South Chiverton, South Darren, North Levant, Ding Dong, Wheal Jane, West Great Work, Bryn Gwiog, East Rosewarne, East Lovell, Minera Boundary, Pestarena Gold, North Wheal Chiverton, Frank Mills, and West Caradon.

Mr. E. J. B. begs to direct special attention to the SOUTH MERLLYN MINE, shares in which are selling at very low prices, taking into consideration the discoveries already met with. This mine is likely to become very valuable and prove a permanent dividend property. M. E. J. B. is a BUYER or SELLER of shares, and is prepared to give full and reliable information concerning the mine, which is situated in the centre of the Flintshire mining district, and surrounded by mines that have been and are making large profits.

Holders of Stock difficult of sale in the open market may find purchasers on application to the above.

MR. J. R. PIKE, for upwards of Twenty Years intimately acquainted with most of the Mines in Cornwall, OFFERS his SERVICES to INVESTORS in this CLASS of SECURITIES. The present time is most favourable for properties returning tin. Shares may now be selected to pay a greater percentage than any other medium of investment. A selection of six mines, Dividend and Progressive, may be had on application.
3, Crown Chambers, Threadneedle-street, London, E.C.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,
ETHELBURGA HOUSE, BISHOPSGATE STREET WITHIN, E.C.
Established Eleven Years.
Bankers: City Bank, London, E.C.

MR. C. A. POWELL, STOCK AND SHAREDEALER,
No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
BUYER or SELLER of *Frontino, *Chontales, *North Treskerby, *St. John del Rey, *Pestarena, Great Vor, Wheal Uny, Mineral Bottom, and Prince of Wales.
Mr. POWELL is in a position to advise as to those mines marked *, and should be consulted at once.
Business transacted at net prices. References exchanged.
Bankers: City Bank, Finch-lane.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the FOLLOWING SHARES, at net prices :—

50 Anglo-Brazilian, 9s 9d
25 Brynpostig, 27s. 6d.
50 Bryn Gwiog, 6s. 3d.
20 Chiverton, £3 9s. 6d.
30 Chontales, £1 4s.
20 Caldbeck Fells, 16s 6d
40 Drake Walls, 20s. 9d.
20 Don Pedro, £3⅞ pm.
20 East Snaefell, 30s.
10 E. Grenville, £4 8s 9
5 East Caradon, £8¾.
5 East Lovell, £9¾.
40 E. Wheal Reeth, 22s.
50 Frontino, 11s. 6d.
20 Frank Mills, £3⅞.
5 Great Laxey, £19¼.
50 Gt. No. Laxey, 30s 6d
5 Great Vor, £15 7s. 6d.
100 Gen. Brazil., 2s. 9d pm
5 Marke Valley, £9 1s 3
30 Mineral Bottom, £3⅛
40 Minera Boundary (offer wanted).
10 New Lovell, £2 16s 3d
40 North Crofty, 23s.
20 No. Treskerby, 17s 9d
30 Prince of Wales, 24s 6
50 Pestarena, 27s. 6d.
30 Royalton, 29s.
50 So. Condurrow, 25s 6d
50 Tamar Valley, 14s.
50 Taquaril, 3s 6d pm.
5 Tincroft, £19⅝.
20 W. Godolphin, 24s. 9d
50 W. Drake Walls, 7s 6d
40 Wh. Crebor, 11s. 9d.
20 Wh. Grenville, 47s. 6d
3 Wh. Mary Ann, £19¾
1 Wheal Seton, £72½.
50 Yudanamutana, £3⅛

W. M. invites the attention of his friends to South Merllyn Mine, which he has had specially inspected. A few shares can be obtained at present low price, and should be immediately secured.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of :—

25 Maes-y-Safn, £20½; 20 Penhalls, £5½; 50 Prince of Wales, 24s. 6d; 35 Wheal Mary Florence, 21s. 3d.; 100 East Rosewarne, 4s. 3d.; 75 Crebor; 100 Royalton, 28s. 9d.; 100 North Jane; 5 Minera, £180: 50 North Treskerby, 17s. 9d.; 15 Don; 5 West Tolgus, £42½; 75 West Tremayne, 15s. 3d.; 100 East New Wheal Lovell, 8s.; 30 Great Western, £2¾; 25 Nangiles: 30 Drake Walls, 22s.; 5 West Frances, £49; 30 Pedn-an-drea; 200 West Godolphin; 20 New Lovell, £2⅞; 365 South Great Work.

Mr. B. can recommend the purchase of shares in some dividend and sound progressive tin mines. Having no immediate personal interest in the success of any particular mine, he is in a position to give unbiassed advice.

CORNISH AND FOREIGN MINES—TO SHAREHOLDERS AND OTHERS.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, March 5, No. 522, Vol. XI., price 6d. each copy, forwarded on application, contains information in the following mines :—

Great Wheal Vor.
Wheal Margaret.
Botallack.
Wheal Owles.
St. Ives Consols.
Chiverton.
West Drake Walls.
Great North Laxey.
Tincroft.
North Roskear.
Wheal Uny.
West Chiverton.
Chiverton Moor.
North Wheal Crofty.
Frontino and Bolivia.
East Wheal Seton.
Stray Park.
Dolcoath.
West Great Work.
South Great Work.
Wheal Trelawny.
South Wheal Frances.

With Remarks on the Mining Share Market, Rise in the Price of Tin, &c.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to *bona fide* investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.
PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange).
Twenty-four years' experience.
(Two in Cornwall and Twenty-two in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE,
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET (and Mining Exchange), LONDON, E.C.
Mr. COOKE still advises the purchase of Great Western, Great Wheal Vor, East New Lovell, New Wheal Lovell, Prince of Wales, and Frank Mills shares, feeling confident of a considerable advance in price.
BUYER of Frank Mills, New Wheal Lovell, and West Great Work shares, at market prices. References given.
Price-list sent free on application.
Bankers: Alliance Bank.

MR. W. H. CUELL,
No. 42, CORNHILL, LONDON, E.C.
SPECIAL BUSINESS in Great Laxey and Great North Laxey shares.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Business as BUYER or SELLER in Chontales, Don Pedro, General Brazilian, and Taquaril Gold shares.
Bankers: City Bank, Finch-lane, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.
T. R. has BUSINESS in the following mines, at close market prices :—

Cook's Kitchen.
East Carn Brea.
East Grenville.
Frontino and Bolivia.
Great Wheal Vor.
North Treskerby.
New Lovell.
Prince of Wales.
Tincroft.
West Caradon.
Wheal Grenville.
Wheal Seton.

Parties interested in mining, and who wish to be guided right, should consult T. R., he not only having been a practical miner, but has been in the share market for thirteen years. Those who have hitherto consulted me have done well, and I never saw a better opportunity than the present to make money if properly employed. Shares can be exchanged to great advantage.
CHIVERTON MOOR.—At Clogg's shaft two cross-cuts are driving north and south to cut the West Chiverton lodes, and should they be found productive shares will be £20, and for my own part I do not see why Chiverton Moor Mine should not be equal to West Chiverton. The management is now in London, a committee appointed, and call of 6s. 6d. per share made. I strongly advise the immediate purchase of these shares at present prices, also East Caradon, Bedford Consols, Bedford United, and Frontino and Bolivia.
T. R. is a SELLER of West Chiverton and Chontales for time on below the present market prices.
Money advanced to any extent on good mining shares.
Office hours Ten to Four. Bankers: Bank of England.

MR. HENRY MANSELL, 44, THREADNEEDLE STREET, LONDON.
H. M. advises the immediate purchase of East Caradon, New Lovell, South Condurrow, and Tamar Valley shares.
Thirteen Years' Experience.
Bankers: London Joint-Stock Bank.
References exchanged.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.
SPECIAL BUSINESS in the following gold mines :—

Don Pedro.
Taquarli.
Rossa Grande.
Ding Dong.
General Brazilian.
Port Philip.
Anglo-Brazilian.

Bankers; The Alliance Bank.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR AND FINANCIAL RECORD"
(Published on the first Wednesday in each month)
Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.
*** Sent free on application.
2, Bucklersbury, London, E.C.

WEST CHIVERTON MINE.—The interested efforts that have recently been made, and not without success, to depreciate the value of the shares in this rich mine in the market, have induced Messrs. BARTLETT and CHAPMAN to have it inspected by Capt. John Nancarrow, of Camborne, whose competency and integrity no one questions, and the report is most satisfactory as to the condition and prospects of the mine. The report will be forwarded on application.
2, Bucklersbury, London, E.C.

Established Twelve Years.—Twenty-four Years' Experience.
MR. F. W. MANSELL, 44, THREADNEEDLE STREET, LONDON, E.C.
The PURCHASE and SALE of Stock Exchange Securities and Mining Shares negociated upon close terms. References exchanged.
Bankers: London Joint Stock Bank.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.
PUBLIC SECURITIES of every description Bought and Sold upon advantageous terms. Facilities for payment, and every reliable information afforded to Investors.
LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.
Five per cent. interest allowed upon DEPOSITS of all amounts.
Money and Finance Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

GOLD AND SILVER MINING SHARES.—RICHARD TAYLOR AND COMPANY are DEALERS in the FOLLOWING SHARES :—

CHONTALES.
DON PEDRO.
PESTARENA.
PORT PHILLIP.
ROSSA GRANDE.
ST. JOHN DEL REY.

Investment, Loan and Bank Agency,
No. 12, Clement's-land, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND SHAREDEALER, 77, OLD BROAD STREET, LONDON.
Lead mining in the Counties of Cardigan and Montgomery has lately been very successful, and likely to continue so.
T. P. THOMAS, having a thorough knowledge of these districts, is at all times prepared to make SELECTIONS for investors.
WEST CHIVERTON, WHEAL CHIVERTON, MINERAL BOTTOM, and other Mines in the Chiverton District.—Investors and speculators can have reliable information as to the present position and future prospects of the above-named mines on application to T. P. THOMAS.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps,
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE
PRINCIPAL MINES and MINING DISTRICTS of CORNWALL and DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

ESTABLISHED SEVENTEEN YEARS.
GRANVILLE SHARP AND CO.,
SHAREDEALERS, 32, POULTRY, LONDON, E.C.
RELIABLE INFORMATION GIVEN TO SHAREHOLDERS & INVESTORS.
All Stocks and Shares BOUGHT and SOLD at the closest market prices nett.
WANTED TO PURCHASE, the following shares, or any part, for cash :—

50 TRUMPET CONSOLS.
30 NANGILES.
5 WHEAL SETON, £70.
500 GREAT CARADON.
100 EAST GRENVILLE.
200 WHEAL GRENVILLE.
2 WEST WHEAL SETON, £200.
500 NORTH JANE.
10 WHEAL MARY ANN.
100 EAST CARADON.
100 LOVELL CONSOLS.
15 PROVIDENCE, £39.
200 EAST CHIVERTON.
100 EAST TRUMPET.
20 WHEAL TRELAWNY, £8.
20 WHEAL JANE.
100 PRINCE OF WALES.
50 NEW LOVELL.
20 TINCROFT.
200 WHEAL CREBOR.
5 WEST FRANCES.
50 GREAT VOR.
3 WHEAL BASSET.

Sellers will please state number and lowest price for cash.
N.B.—It is quite impossible to "OFFER" a list of SHARES for SALE at FIXED PRICES, as market prices vary daily, and sometimes hourly.

NOTICE TO SHAREHOLDERS.
NANGILES (COPPER) MINE.—WANTED TO PURCHASE, TWENTY or THIRTY SHARES in this MINE, for immediate cash.
Sellers must state number and lowest price, for cash (all calls paid to date).
GRANVILLE SHARP AND CO., 32, POULTRY, LONDON, E.C.

NOTICE OF REMOVAL.
MATTHEW GREENE begs to inform his FRIENDS and CLIENTS that he has REMOVED from St. Michael's House, Cornhill, to—
No. 14, PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.

M. GREENE has just returned from a tour of inspection, and can give reliable information on the following mines :—

Devon Great Consols.
Drake Walls.
West Drake Walls.
Tamar Valley.
East Caradon.
Marke Valley.
Van Mine.
Wheal Mary Florence.
Prince of Wales.
West Prince of Wales.
Princess of Wales.
West Caradon.
New Clifford.
New Lovell.

And the mines in Clifford Amalgamated district.
M. G. will be happy to give all parties desirous of inspecting New Clifford or Tamar Valley Mines an order to go underground to examine the lodes, &c., and judge for themselves as to the prospects of these two mines.
SPECIAL—VAN MINE: M. G. is well informed as to the merits and prospects of this property, having watched its progress for the last two years; and only just returned from a visit to the district, will be happy to give his clients the benefit of his observations.

MR. G. D. SANDY, 48, THREADNEEDLE STREET, E.C., has FOR SALE the following MINE SHARES at nett prices :—

20 East Caradon, £8 14s.
15 East Lovell, £9¼.
30 East Grenville, £4 7 6
50 East Rosewarne.
10 Tincroft, £18 12s. 6d.
7 Trelawny.
12 Great Vor, £15 12s 6d
25 Chiverton, £3½.
3 West Chiv., £51 18s 9
1 Wheal Seton, £74.
1 West Seton, £199.
70 So. Condurrow, 24s.
16 Great Laxey, £19 2s 6
55 Prince of Wales, 24s.
40 West Gt. Work, £3¼.
10 Marke Valley, £9 2s 6
35 Wheal Agar, 27s. 6d.
50 New Lovell, £2 12s 6d
160 Taquaril Gold, 11s.
45 Chontales, £1 3s.
50 Don Pedro, £3 17s. 6d (premium).
10 Chiverton Moor.
60 Drake Walls, 19s.
20 Frank Mills, £3 12 6d
150 Great So. Chiverton.
25 North Crofty.
75 No. Treskerby, 17s 3d
20 Pestarena.

G. D. SANDY can recommend a few mines for an immediate and safe investment, certain to have a great rise in price. Particulars on application.
G. D. S. is in negociation for a mineral property of extraordinary productiveness, particulars of which he will inform his clients in due course.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT of CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.
6, Bond-court, Mansion House, London, E.C.
Bankers: Bank of England.

INVESTORS IN MINING COMPANIES.—Mr. CHRISTIAN recommends the immediate PURCHASE of NORTH LEVANT SHARES, whether bought to hold as an investment or to sell again. It is a splendid property, and dividends are close at hand. Although Mr. CHRISTIAN is the only person publicly recommending the purchase of shares in this sett, he does so with the greatest of confidence, feeling assured that those who buy now will do well.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER,
No. 34, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various Mining Securities at best market prices.
SPECIAL BUSINESS in Taquaril, Great Laxey, West Chiverton, Don Pedro, Lovell Consols, Glan Alun, West Godolphin, Chontales, and Prince of Wales.
Bankers: The Alliance Bank, London, E.C.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.
ROYALTON.—The steady increase in the price of tin is causing a great demand for shares in legitimate tin mines, and which, there can be little doubt, will become generally valuable. Investors, however, should be careful how they place money in deep and expensive mines, which can only pay profits with tin at high prices. They should rather seek an investment in those mines which, with extensive reserves, can pay profits with tin at its lowest price. Among the best of this latter class I place Royalton, and recommend the purchase of the shares wherever they may be met with. At their present price they are intrinsically very cheap indeed.

MESSRS. WILLIAMS, AND CO., MINING AGENTS,
STOCK AND SHAREDEALERS,
12, PARSONAGE, ST. MARY'S, MANCHESTER.
SPECIAL BUSINESS in Great Northern Manganese Company (Limited).

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER
(Member of the Stock Exchange),
No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE,
Bankers: Messrs. Lambton and Co.

MESSRS. A. STUART AND CO., STOCK AND SHAREDEALERS, 93, BISHOPSGATE STREET WITHIN, E.C.
The Brazilian mines are now generally inactive, and most of them have recently declined. We are now dealers in all of them at best current rates.
TIN MINES.—These have become active during the past week or two, and many may be bought to pay well. Shares may be secured for dividends or a rapid rise, as we can advantageously negotiate business in them, cash or account.

The Royal School of Mines, Jermyn Street.

MR. WARINGTON SMYTH'S LECTURES.

[FROM NOTES BY OUR OWN REPORTER.]

LECTURE XXXV.—The series of operations described in the last lecture tax in a high degree (said Mr. Smyth) the courage and ingenuity of mining engineers, and especially of those who have cast upon them the duty of providing for the security of shafts passing through watery ground. The great points to be borne in mind are those suggested by the new methods and new kinds of tubbing introduced by M. Triger, M. Kind, M. Guibal, and M. Chaubanc, in sinking through quicksands or other watery ground, by which it is practicable and advisable, for the sake of economy, to sink down with the bore-hole full of water.

We now come to that great division of the work of mining which relates to the breaking away of the mineral which has been laid open by dead work. I have already mentioned several matters in connection with this branch of the work, and we have seen that in dealing with stratified rocks that the shaft is sunk to a certain plane, and then levels have to be driven out, but that in metalliferous mining the lodes are set on edge, as it were, or lie at a high angle. For these somewhat different arrangements have to be made, and I propose to take to-day the case of only ordinary mineral veins, which are placed from an angle of 45° up to the perpendicular, and of no great magnitude as to thickness. There are, however, some general considerations with respect to this working away or exploitation of the minerals; and, first, as to angle of inclination; next as to thickness, and the substances of which it is composed; thirdly, as to the character of the hanging and the foot walls; and, lastly, whether or not the whole of the mineral between those walls is useful, and is to be removed. If we take two veins—one nearly vertical, and the other at a low angle of inclination—we shall see at once that the mode of exploitation must be different. In the first case, and particularly if the whole of the mineral is to be removed, the workings must be more or less protected at the sides. If the lode be of large size, and the object is to remove the productive part without touching the other part, the pressure to be met will be variable in its direction and force. A more horizontal deposit, such as a seam of coal, where the whole of the upper ground is of the same condition, the roof will have to be propped while the mineral is worked away, and then allowed to fall in some way which will not interfere with the safety of the men and the arrangements of the mine. In both cases the objects which will have to be kept in view will be of the following kinds:—

1.—The workings must be so arranged as to keep them clear of water. This would seem an obvious and universal duty, but you will find very frequently in mines on a small scale that it is lamentably neglected. Thus, when they find the ore is going down, the men are apt to remove that which looks the best, without reference to the future, and to cut it away in stopes, trusting to remove the water by manual labour, but the difficulty of raising the ore and the water, increases with every foot they go down. The shaft may be only a windlass shaft, and if it has to be sunk lower the men will have to work in the water. The consequences are so well known, that getting ore in this way is termed "dragging it out by the hair of the head." It is after all a short-sighted and expensive expedient, as the greater part of the value of the mineral is consumed by the expenses of raising the water and ore, to say nothing of the cost of the delays which happen whenever the water comes in larger quantities than usual, by a feeder being cut, and everything is interrupted for the time being. After what has been already said, it is hardly necessary to add that the proper mode of dealing with even these small deposits is to sink the shaft at first to a proper depth, and then to drive levels underneath the orey ground, which may then be removed by one or other of the different systems in use.

2.—The works must be disposed in such a manner, with respect to the shafts and levels, as to make the carriage or transport of the ore economical. If the works are badly kept, or a large portion is opened at one time at a place where there is convenient means of access to the shaft, such proceedings may interfere seriously with any remuneration being obtained. This is more obvious in a colliery than in a metalliferous mine, but it is obvious enough in both, as the rate of transport underground is immensely higher than at the surface. This consideration makes it important to improve and shorten the routes as much as possible.

3.—The ventilation of the working places must be carried forward as perfectly as possible, both with a view to the saving of time, to economy, and to prevent danger to the health and lives of the workmen. For instance, if we take the case of a level 150 fms. from the surface, driven very much in advance of the other levels, which is often the case, the ventilation will be found extremely difficult to deal with, so as to enable the men to work satisfactorily, and without injury to health. The natural remedy in such a case is to sink a winze or shaft to the nearest workings, or, in other cases to mitigate the evil by procuring the use of a ventilating machine. It is obvious that in a bad atmosphere the health of the workmen must suffer, and whenever a shot is fired there will be great loss of time in waiting for the smoke to disperse, unless it is carried away by ventilation.

4.—The most important point in all mining operations is that preparatory or exploratory levels, both on the strike and on the dip, should be carried on while the other portions are being worked out. When this is fairly done, great lengths may be opened in poor ground without being so serious a charge as they will be if not counterbalanced by profitable works in other parts of the mine. Take, for instance, the case of a small mine with two shafts; if the manager have not a proper degree of prudence and forethought, he will constantly find a great tendency to remove the ore, and to neglect the duty and avoid the expense of sinking other shafts and driving other levels. As soon as this neglect sets in, the closing of the mine begins. It often requires much courage as well as foresight, for it frequently happens that the manager will be sinking these shafts and levels for years beforehand until, perhaps, the good ground is nearly exhausted. If he does not do so, however, he will be obliged to fall back on the company or proprietor for fresh capital; and if all the ends are getting poor at once, no one will be induced to go on with such a mine. On the other hand, if exploratory levels have been already driven it will commonly happen that a fresh course of ore will have been discovered, or in any case, a more favourable appearance, with which the owners will gladly go on till something better is met with; and this is a case which often occurs. When we hear of this "tut" or "dead work" not being pushed at times when the mine is doing tolerably well, we may be sure the owners are (though, perhaps, unwittingly) destroying their mine. Experienced captains of mines are perfectly aware when they are doing right in this respect, but it often happens that their hands are tied, and they are obliged by the owners to work the mine in a particular way. It is in consequence of this that many mines come to a standstill, which, when resumed by others, will pay very well; and it not unfrequently happens that mines are abandoned and resumed two or three times, each new attempt involving a great expenditure of capital to put them right again, which might have been saved if the mines had been worked from the first with a due consideration of the future. These are facts that ought always to be kept in view.

5.—The working places should be so disposed that the largest possible number of men can be brought to bear on them at once, yet without any crowding. Even if it were for ventilation only, it is bad policy to crowd a limited portion of the works with too many men, who hinder and interfere with each other. This is a point sometimes very hard to manage in metalliferous mines, as if the mine happens to be poor, and in one part of the vein good ore is met with, the managers are too apt to crowd the men in that part, and get all they can from it.

6.—Great endeavours should be made to extract the whole of the mineral without waste. In metalliferous mines this is best done by setting the ground on the system of "tribute," in which it is the interest of the men to prevent waste, and to examine the ground with care, that none of the ore may get among the rubbish. In certain localities it may be absolutely necessary to leave valuable mineral behind, for the safety of both men and mine. At the Levant Mine a case in point occurred. At a comparatively shallow level, far out under the sea, a great outcry was raised that the sea water was coming in. The captains proved beyond doubt that there was a considerable quantity of salt water going into the mine, but as this was an old and known "feeder," there were no fears for its immediate safety. The tin ore being in that part very good, but surrounded with hard and difficult rock, the miners had been allowed to work upwards towards where there might be risk. It was determined not to go further, and the managers put in strong timbering to prevent any further settlement, and ceased to work in that particular spot. There is always risk where a vertical fissure occurs, and where, by taking away the ground, the crust between the miners and the sea becomes weakened—or where a lode is inclined at a considerable angle, and it is difficult to replace its excavated substance by built pillars. Although the lode may consist of good masses of ore, it may be advisable to make some sacrifice by leaving arches of the unworked lode, rather than run the risk of the roof coming in. And in stratified deposits, where there is a bad roof, it may seem wasteful to leave 1 or 2 feet of good coal as roof, but balancing the expense of supporting that portion of the roof against the loss of coal by leaving it in the pit, the latter is the most advantageous.

7.—Regard must be given to the settlements of ground at the surface, which damage or destroy buildings, perhaps villages or towns, produce large hollows, or let in the waters of canals, rivers, reservoirs, or even the sea, and so occasion vast expenses for repairs and compensation, which may frequently be avoided or lessened by early remedial action. In cases of this kind either large masses of the mineral must be left as props, or replaced by artificial props of a permanent character. There are, however, many workings of this kind at which the material is removed for so great a depth that no danger to the surface need be apprehended.

Let us now turn to the actual workings by which the mineral is removed from the bed in which it has reposed for untold ages. When the lodes do not exceed from 6 to 10 ft. in breadth—that is, from wall to wall—we must consider what are the best conditions of safety to the men, and modify the openings and the form into which the workings may be thrown, to secure that end. If the valuable mineral be diffused so generally through the mass of the lode that we cannot take one part and leave another, or of a stratified character, so that all must be taken out, it is sometimes the practice to leave a portion of the lode at intervals to keep the two walls asunder, for which purpose it serves better than timbering or any other artificial contrivance. Where, however, there are large portions of a lode to work away, and, of course, a large number of men are employed, it is necessary to arrange the workings on the plan of steps or stopes, so that they may work without interfering with each other. Thus, as I have already mentioned, a quarry is worked by a succession of steps; and it is now a system generally adopted, whether working on the face or on the end, when a large number of men have to be employed. After the shaft has been sunk to a certain depth, levels are driven generally at 10 fms. apart. In foreign mines you will generally find the levels named after the saints, but in this country we generally call them by the number of fathoms they are from the adit, or, as in Flintshire, the number of yards. The second step is to cut a winze, as it is called in the West, or a sump, as in the North of England, from one level to that below, and the drainage of the portion about to be worked must be ensured. The system usually adopted formerly in the South of England, and on the Continent, was then to remove the mineral by what was called underhand stoping; in the German, stropenbau—that is, they first cut the ground 6 ft. in depth, and, working from the winze, took off successive slices; and then another similar stope, and so on, they being kept from 4 to 6 fms. back from each other. The only difficulty, then, was to get away the mineral to the surface, which was wound up by windlasses, involving a great expense, which ought to be avoided if possible. In order to obviate the great inconveniences of this system, what is called overhand stoping (German, firstenbau) came into use. This plan reverses the other mode of working—both begin from the winze, but instead of the men working downwards upon the mass beneath them they work upwards, picking at the mass overhead, they themselves being protected by props. In this way the material, as it is brought down, is upon the level, and may be piled in the tubs and removed to the main shaft without any windlass work. There are great advantages in this system. A great deal of timbering may be dispensed with, the long lines of stulls required in underhand stoping are done away with, and the men have the assistance of the law of gravitation. There are, however, considerations on the other side to be thought of. Suppose the lode to be one of a very rich character—as, for instance, in some of the Hartz silver mines, gunpowder be used, the valuable ore will be blown here and there amongst the attle. If it be really attle intended to be left in the mine, the silver is lost; if the mass be an orey material which has to be dressed, some of the silver may be regained, but the loss will be serious, especially if the ore runs small. With underhand stoping every fragment of the mass brought down may be swept up, and, so far, it has the advantage. This has been partially overcome in overhand work by spreading cloths or putting planking over the attle, but they are apt to be blown away. Again, where the ground is very hard the labour of boring upwards or horizontal is excessive, and heavier hammers and boring tools can be used in underhand stoping. It may be, therefore, in dealing with very hard ground of a quartzose character, the older system may prove to be the better of the two. The great objection to overhand stoping, however, is that in a jointy and fissured lode great masses are liable to fall, producing terrible accidents, which would not occur with underhand stoping.

Meetings of Public Companies.

BRYNPOSTIG MINING COMPANY.

The half-yearly general meeting of shareholders was held at the London Tavern, on Feb. 26, at which Mr. JOB TAYLOR (Mayor of Dudley), the Chairman of the company, presided.

The notice convening the meeting was read. The report of the directors stated that the present extraordinarily wet season (almost incessant since Oct. 1) having flooded the bottom levels of the mine, and completely overpowered the pumping-engine, has rendered it necessary that additional and more powerful machinery should be at once erected, in order to prevent a recurrence of such drawbacks to the successful development of the mine. Power will be taken to issue the remaining 1500 shares to the present shareholders at par, in proportion to their respective holdings; a powerful engine will be erected as quickly as possible afterwards. The directors add that their strong confidence in the sterling value of the property is in no way diminished by the temporary falling off of returns, inasmuch as it has been caused entirely by the long continuance of the heavy rains. The average sales of ore for the past half-year have been 30 tons per month.

The report of the manager (Capt. John Kitto) states that the mine, so far as developed, is opening up abundantly satisfactory, and the delays occasioned by the increase of water, and the inadequacy of machinery, is the entire cause of the returns not being kept up and increased. The more he sees of the mine the more he is fully convinced that they have an excellent property, and such as can scarcely fail to be highly remunerative to the shareholders at no very distant date. But a pumping-engine must be erected, and the shafts and levels be kept further in advance of the stopes, and the present engine, which is now employed in pumping the water, drawing all the stuff from the mine, and crushing the ores, must be confined to drawing and crushing only; and, in the meantime, whilst the pumping-engine is being put up, he would suggest that nothing be done in the mine besides the sinking of the engine-shaft, the driving of the 24 west, and the putting up a rise in the roof the same (the 24) east, for the purpose of ventilating the level and opening out tribute ground; this can be done with the present appliances, but it is not advisable to attempt to do more under the present circumstances. If the mode of working suggested above be adopted he has no fear for the result; and, in fact, he is quite confident that the operations will be eventually crowned with great success, as he has never in all his experience seen a young mine at the same depth presenting equal prospects.

The CHAIRMAN said, before proceeding to invite discussion upon the reports and balance-sheet, it might be as well to state that the interest of the directors in the Brynpostig Mine was 4810 shares, out of 10,500, which he need hardly say was a sufficient guarantee that the interest of the board was identical with that of the shareholders. This, unlike most companies, possessed a board of directors who, by their aggregate holdings, represented nearly half the shares into which the mine was divided, upon each of which they had paid in cash the amount called up. (Hear, hear.) The number of proxies forwarded in favour of the directors was 2149, and 997 in favour of Mr. Kough, in addition to that gentleman's own holding of 250, so that the shareholders were fully represented.

A SHAREHOLDER said, before the discussion with regard to the mine was opened, he should like to know the reason why the offices of the company had been removed to London?——The CHAIRMAN said that after mature deliberation of the board, in which every *pro* and *con.* was weighed, they came to the unanimous conclusion that it would be to the interest of the shareholders generally to have the company's offices in London, and the more especially as it had been hinted to the board that Mr. Ross (of Messrs. G. R. Ross and Co.)—a gentleman of considerable influence and also of great experience in such matters—was willing to accept the secretaryship.

Mr. B. PHILLIPS asked what amount of additional expense had been thus incurred?——The CHAIRMAN said that so far from the expense having increased there had been an actual saving of 100*l.* per year. (Hear, hear.) He then moved that the report and balance-sheet be received and adopted.

Mr. BROWN seconded the proposition.

Mr. S. H. KOUGH (of Shrewsbury) said that upon the accounts he had no question to ask, as he was perfectly satisfied the directors had taken the proper course by substituting the present form of balance-sheet; but with reference to Capt. Kitto's report, he certainly should like to know this—if they looked to his report they would find it stated that "the 24 fathom level has been driven east through this run of ore ground upwards of 20 fms.; but as this branch was only 8 fms. long at most in the 12, there is not so much ore to be expected from above the 24 as below." If a reference was made to the *Mining Journal* a few weeks since, they would find that Capt. Kitto in his report stated that "the run of ore ground was in the bottom of the shaft." At the same time, he wished to ask Capt. Kitto if he still expected to meet the ore westward?——Capt. JOHN KITTO said if the hon. proprietor had read the whole of his (Capt. Kitto's) report (he meant that referred to as having appeared in the *Mining Journal* a few weeks since), he would have found it stated that the general characteristic of the lode throughout the mine has been more like floors than pipes of ore. He had no doubt whatever that the ore touched in the bottom of the engine-shaft was connected with that which they had west; at present the level was in a poor floor.

Mr. KOUGH expressed his perfect satisfaction with the explanation.

Mr. PHILLIPS asked if Brynpostig was not in the same neighbourhood as the now much-talked-of Van Mine?——The CHAIRMAN said that Brynpostig was not only in the same district as Van, but its lode was the nearest known parallel to that in the Van.

Mr. PHILLIPS said as the interruption to the remunerative progress was clearly owing to the inadequacy of the present engine, he thought it somewhat reflected upon the past management that the present contingency had not been anticipated. But, notwithstanding this, he thought they might congratulate each other upon the possession of a really valuable property.

The CHAIRMAN thought it would be better to give a little history of the mine, in order to clear the directors from the charge of negligence or want of foresight in respect to the machinery. He might mention, in the first place, that Mr. Kough and himself some few years since resumed operations after the mine had been neglected for a period of 60 years. At that time the mouth of the adit was dammed up, and flat-bottomed boats were used for bringing out the ore from the end of the level, and everything had to be taken on mules' backs to and from Aberystwith—a distance of 30 miles. It occurred to Mr. Kough and himself if the mine had been profitably worked under such very great difficulties, that with improved machinery, increased knowledge of mining, and economic facilities of transit, the mine could most likely be worked to some advantage. Upon examining the mine further, sufficient was seen to justify them in continuing operations. They found there was no water except that from the day level, and, therefore, they concluded that a small engine would be quite sufficient; but subsequently water proved to be greater in quantity, arising from fresh floors having been met with. It was then decided to erect another engine for crushing and winding. But it was now found that as fresh floors or pipes of ore were cut, the water increased beyond the power of the present engine, although after any influx of that kind it gradually percolated away. Those were the reasons why a sufficiently powerful engine was not erected in the first instance. It was now suggested by Capt. Kitto that they should have a Cornish engine; and for what he (the Chairman) was about to propose he might, perhaps, at some future day be blamed again; but he would suggest that instead of having a Cornish engine, which could do nothing but pump water, they should put up a rotary-engine, with a divided motion; and the more especially as they knew by experience that as soon as the water unduly increased upon them it began gradually to drain away. Such an engine as he suggested could be purchased and erected for about one-fourth the price of a Cornish engine, and would answer every purpose for many years to come. Everyone who had anything to do with mines knew to their cost that this had been a very wet season, many mines having been flooded, and compelled to suspend operations; and there was no doubt that had it not been for this wet season Brynpostig would have declared a dividend upon this occasion, seeing that up to the time of the mine being flooded the returns were 40 tons per month, while the cost did not exceed 150*l.*, which left a very good profit and a satisfactory return upon the capital expended. The manager, however, now strongly recommended that another level should be opened out, by which means instead of 40 more like 150 tons per month would be returned, while the expenses—that is, the dead charges—would be very little in excess of what they were at the present time. The returns were sufficient to prove that they possessed a first-rate mine. He had already pointed out that whenever they tapped a vein of ore they had been flooded; and as in former instances so in the present, although they had not seen the bottom of the mine for a fortnight, the water was now gradually sinking; but the object in erecting a more powerful engine was to prevent the recurrence of such hindrances as that which was preventing them at the present time making their usual returns, and deferring the payments of dividends. As far as the mine itself was concerned, it was admitted on all hands that its position and prospects were everything the most sanguine could wish. The Boat level must have cost the former proprietors at least 20,000*l.*, and it now answered the purpose of taking the water from the surface to a depth of 60 fathoms.

Mr. PHILLIPS said that although the first cost of a Cornish engine would be considerably larger than a rotary engine, it was a question whether the additional outlay would be subsequently saved, as a comparative economiser of fuel. This, however, was a matter which could be safely left in the hands of the directors.——The CHAIRMAN said the object of the directors was to expend as little capital as possible, and to introduce as few shareholders as possible, so as when dividends were paid they would have to be paid on a small capital.

A SHAREHOLDER said it might be the wish of the directors to limit the shareholders to a small number, but it would be entirely out of their power to prevent the general public buying shares if they saw the mine make anything like the returns indicated by the Chairman.

Mr. KOUGH said the construction of the boiler and engine was such that the consumption of fuel was exceedingly small, considering the amount of work done.——The CHAIRMAN said another reason why the directors and himself thought it better to have a rotary-engine was that they had two boilers which would work such an engine, by which that expense would be saved; they would also save about three months in point of time.——Mr. BROWN asked if it were probable a dividend would be paid at the next meeting, six months hence?

The CHAIRMAN said that they thought they were within reach of a dividend this time, and they now had only to wait till they could again reach the point of operation. There was plenty of ore, and the only question was as to the most economic mode of extracting it.

Captain KITTO would not undertake to promise a dividend for the next half-year, for it would take three months to put up the new engine and get it in fair work.——Mr. ROSS asked if it was not possible that as soon as the fall of rain diminished the present machinery could go to work, and the usual returns forthwith made?——Capt. KITTO said it was possible, for, as the Chairman had said, the water was already going back.

Mr. C. A. POWELL asked if the water being in the mine prejudicially affected it? He asked rather for the information and satisfaction of absent shareholders than for himself, many of whom might misapprehend the true position of the mine.——Capt. KITTO said that the only prejudicial effect was that they were temporarily precluded from making returns; and so far from the presence of water being an unsatisfactory indication, it was just the contrary, for it was a common expression among miners, "No water, no ore."

After some further discussion, it was unanimously agreed that the description of engine to be selected should be left in the hands of the directors, and the report of the directors and balance-sheet was unanimously adopted.

Mr. Bell (the manager of the company's banker) was re-appointed the country auditor. Mr. Owen (of Dudley) was unanimously re-elected director.

The CHAIRMAN said that some short time since it was decided to issue a certain number of the unallotted shares, and to offer them *pro rata* to the shareholders. A portion were not taken up, and when Mr. Ross agreed to accept the secretaryship he was naturally anxious that his own friends should hold an interest in the mine; and the directors holding these shares in trust, and not having been taken up by the shareholders, decided to dispose of them to that gentleman. By that arrangement the company benefitted by those shares to the extent of about 120*l.* more than their par value. He introduced the subject now, because it was necessary for the shareholders to confirm it.

A resolution to that effect was put and carried unanimously.

A special meeting was then held,—Mr. JOB TAYLOR in the chair.

Mr. MACKINTOSH proposed that in accordance with the terms of the 109th clause of the Articles of Association, the remaining 1500 shares now held by the directors be allotted and issued *pro rata* to the present shareholders.

Mr. BEW seconded the proposition, which was put and carried unanimously.

Upon the proposition of Mr. BROWN, seconded by Mr. MACKINTOSH, a cordial vote of thanks was passed to the Chairman and directors.

The CHAIRMAN asknowledged the vote on behalf of his colleagues and himself. He need hardly say that the large interest they held in the mine ensured their utmost exertions in having every detail conducted with efficiency, economy, and honesty. Shareholders might rest perfectly satisfied that, as heretofore, the directors would continue to do the best to promote the best interests of the company. (Hear, hear.)

Upon the proposition of Mr. MACKINTOSH, seconded by Mr. S. H. KOUGH, a unanimous vote of thanks was passed to Mr. Ross for the efficient and satisfactory manner in which he conducted the company's affairs in London.

Mr. ROSS appropriately acknowledged the vote, stating that his aim would continue to be so to manage every detail connected with his department as to merit the confidence of the shareholders; and he only hoped, as he believed, that as soon as Brynpostig had been developed to an extent sufficient to afford facilities for the economic extraction of its ore, it would successfully vie with its rich neighbour—the Van. (Hear, hear.)

A vote of thanks was also passed to Capt. Kitto, the manager.

The proceedings then terminated.

RAILWAY PASSENGERS' ASSURANCE COMPANY.

The twentieth annual meeting of shareholders was held at the offices, Cornhill, on Wednesday,

Mr. JAMES CLAY, M.P., in the chair.

Mr. W. J. VIAN (secretary) read the notice convening the meeting.

The report of the directors stated that the income of the company has continued to progress during the past year in the same steady and satisfactory manner as hitherto. The amount received for premiums in 1868 was 113,657*l.* 3s. 4d., against 104,296*l.* 9s. 11d. in 1867, being an increase at the rate of 8·97 per cent. The total receipts in 1868 were 117,085*l.* 18s. 1d., against 107,903*l.* 0s. 5d. in 1867. The number of new annual general accident policies issued during the year was 8527, the premiums on which amounted to 23,941*l.*, against 9099 policies and 24,942*l.* in 1867. A slight falling off is observable, which can scarcely be a matter of surprise when the protracted depression of all commercial affairs is borne in mind. The amount paid as compensation during the year was 62,199*l.* 19s. 7d., being at the rate of 54·72 per cent. upon the premiums, which compares satisfactorily with the rate of 57·67 per cent., that obtained during the present year. The number of claims paid was—29 for fatal accidents, 17,297*l.*; 3195 for non-fatal accidents, 44,902*l.* 19s. 7d.=62,199*l.* 19s. 7d. The working expenses show but a fractional decrease, being 28·84 per cent. in 1867, and 28·20 per cent. in 1868. The balance to the credit of the revenue account on Dec. 31, including that brought forward from the previous year, was 61,081*l.* 4s. 2d., from which, after making the necessary reserves, the directors propose at this meeting to declare a bonus of 14s. per share. In accordance with the provisions of the Deed of Settlement, 7s. per share, or one-half of the bonus, will be credited as paid upon each share, and the remaining 7s. per share will be paid in cash, in addition to the usual interest at the rate of 6 per cent. per annum for the half-year on capital paid up. The paid up and invested capital and reserve fund will now amount to considerably more than 80,000*l.*, affording a satisfactory guarantee to the policy holders, that all *bona fide* claims, arising from the widely extended business of the company, will, in the future, as in the past, be promptly and liberally met.

The CHAIRMAN said he had but little to add to what was contained in the report. It had always been a subject of congratulation to see the increasing and satisfactory progress of the company's business; but he thought this year they might consider it more than usual the subject of congratulation, because the year 1868 was, probably, even more dull than the year which preceded it—that dulness arising, no doubt, from the panic of 1866, from the effects of which they had not yet recovered. He, therefore, considered the increase in the company's business, as shown in the report, was a matter for more than usual congratulation. (Hear, hear.) At the same time, however, there was one part of the report upon which they certainly could not congratulate themselves, and that was the falling off in the number of journey tickets issued; but that need not cause any apprehension, for it was no doubt attributable in part to the general dulness in all descriptions of business, while it was to be recollected that their customers who insured by journey tickets belonged to the same class of cautious and prudent men who insured annually upon general accident policies. They must remember that everyone who took out an annual policy was one customer lost of that class who insured by journey tickets. The rest of the deficit was no doubt to be attributed to the dulness of trade which still prevailed throughout the country, as was amply proved from the letters of the company's agents, complaining of the exceeding difficulty in procuring renewals, and in finding new business. Even that frightful accident to the Irish limited mail at Abergele, which, under ordinary circumstances, he believed would have brought a marked increase of business in that particular class of insuring, failed in any sensible degree to increase that particular kind of business at the time. In the results of that this company had been peculiarly fortunate, having had only one death. In that case death was hardly the word to describe the form of that fearful event, as it was such an utter annihilation, the only evidence left being a signet ring. The company, under those extraordinary circumstances, did not conform to the usual requirement as to the production of proof, but accepted the finding of the signet ring as sufficient to justify the directors in paying the sum of 1000*l.*—the amount for which this unfortunate man was insured. Several gentlemen who had insured were in the back part of the train, who received no injury; two gentlemen, however, who were also insured, would have been in the carriages destroyed had not they accidentally seen some friends in the back part of the train, and, by joining them, escaped the miserable death that otherwise awaited them. If there were any gentlemen present interested in field sports, it might be of some interest to them to know that the board never had a year so fertile in hunting accidents. He added that Lord Somerville's was one of those accidents upon which the company had had to pay. He then moved that the report and balance-sheet be received and adopted.

The Hon. ARTHUR KINNAIRD, M.P., seconded the proposition. He said that the Chairman had alluded to the salient points in the report, and, therefore, he (Mr. Kinnaird) would content himself by stating that the accident alluded to by the Chairman was only another evidence of the wisdom of keeping up a substantial reserve fund, and it could not fail to be satisfactory to the insurers to know that the reserve fund was more than ample to meet any contingency.

The report and accounts were received and unanimously adopted.

The CHAIRMAN then declared a bonus of 14s. per share. In accordance with the provisions of the Deed of Settlement, 7s. per share, or one-half of the bonus, will be credited as paid-up on each share, and the remaining 7s. per share will be paid in cash, in addition to the usual interest at the rate of 6 per cent. per annum for the half-year on capital paid-up.

Messrs. James Brace Alexander, Theophilus Clive, Alexander Greig, and Jas. Mitchell were re-elected directors.

A unanimous vote of thanks was passed to the Chairman and directors for their services during the past year, and it was agreed that their remuneration be increased from 1500*l.* to 2000*l.* per annum.

Messrs. Alexander Scrutton, Thomas Charles Bates, and Richard Dickerson were re-elected auditors.

The CHAIRMAN having acknowledged, on behalf of the board and himself, the vote of the proprietors, stated that the reserve fund was now more than 80,000*l.*, and would be gradually increased; and if a similar accident to that at Abergele should occur, and every passenger who suffered and was insured in the company, the effect would be but a monetary shock to its stability, and would interfere for the shortest possible time with its increasing prosperity.

The proceedings closed with the usual vote to the Chairman.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Feb. 28 amounted to 9245*l.* 6s. 9d.

THE MANUFACTURE OF WATCHES AND CLOCKS.—A most interesting and instructive little work, describing briefly, but with great clearness, the rise and progress of watch and clock making, has just been published by Mr. J. W. Benson, of 25, Old Bond-street, 99, Westbourne-grove, and the City Steam Factory, 58 and 60, Ludgate-hill. The book, which is profusely illustrated, gives a full description of the various kinds of watches and clocks, with their prices, and no one should make a purchase without visiting the above establishments or consulting this truly valuable work. By its aid persons residing in any part of the United Kingdom, India, or the Colonies, are enabled to select for themselves the watch best adapted for their use, and have it sent to them with perfect safety. Mr. Benson, who holds the appointment to the Prince of Wales, sends this pamphlet to any address on receipt of two postage stamps, and we cannot too strongly recommend it to the notice of the intending purchaser.

Original Correspondence.

HINDE'S NEW SYSTEM OF IRON AND STEEL MAKING.

SIR,—In all matters pertaining to Iron and Steel Making we are, it would seem, at an epoch of a new revelation. Listen to this:—

"With a system now available, based upon scientific principles, in accord with the fixed and incontrovertible law of chemistry, and by which, therefore, true results are attainable, the present method of manufacturing malleable iron by puddling cast-iron must speedily and wholly pass away, and it will be known as a matter of historical record alone that such a process, absolutely wrong in theory and utterly unsatisfactory in results, once formed a part of the metallurgical industry of Great Britain."

Now, here is a trumpet-note which, in this age of mediocrity and non-achievement, is positively refreshing. And it is not the less refreshing because it is heralded in the pages of our very old acquaintance and friend, the *Mining Journal*. The above quotation is from your impression of Oct. 10 last, and occurs in one of the interesting papers of your correspondents, the Messrs. Hinde. Its thrilling tones inspire visions—we trust not illusory ones—of blast-furnaces abolished, puddling-furnaces become things of the past, cementation cones absent from the Sheffield landscape, their gannister boxes turned into coffins for reception of the exploded revenues (dormant patents) of Mr. Bessemer, the never-budding achievements of poor Mr. Heaton (snuffed out by Bessemer and Hinde), and the past mishaps (in spiegeleisen) of Mr. Robert Mushet.

The people of the Black Country, of Derbyshire, of South Wales, of Tyne and the Tees are doomed, we expect, henceforth to cast shame-faced glances at their lumbering and blundering 80 and 105-feet blasts, as being but monuments of a past folly and infatuation, both inside and out. Two new prophets have arisen, and all these old things are to pass away, and for ever.

In these papers of Messrs. Hinde there is much that is suggestive; a good deal that is inconceivable, as to how they will manage their delicate and ticklish operations; and there is, moreover, as it appears to me, a singular deficiency of accurate and close acquaintance with several important points in both the history and the chemistry of their subject. The combative element, too, looms large. Why will rival inventors ever persist in showing fight to each other? Why does not each inventor simply prove his own case, and leave it to rest on its own merits? It is very natural, if not very wise, that the Messrs. Hinde, as squatters (I use the term figuratively, and not offensively), should earnestly occupy themselves in scaring off the aboriginal inhabitants, eradicating old stumps, and rooting up weeds and parasites to make room for their own wigwam. It is not, therefore, much to be wondered at that, in their land-clearing process, Mr. Bessemer should catch a stroke or two of the hatchet, or that Mr. Heaton's sprout should be decapitated off hand. And the Messrs. Hinde will, of course, be neither surprised nor aggrieved to find that anyone, having an interest in the country, should indulge himself with a look at the kind and qualities of the new locators.

I would premise that, whilst I am deeply interested in the question at issue, both pecuniarily and scientifically, I have no special interests or inventions to advocate. It would be to me an unqualified pleasure to find the Messrs. Hinde's system to be as valuable as their earnest and straightforward advocacy of it would indicate. Still, after a careful perusal of their articles in the Journal, were I to summarise my first impressions (but first impressions are, of course, not always to be relied on), I should say that these gentlemen in, at least, some of the scientific points of their subject were imbued with singularly antiquated views; that they have simply written themselves (on paper) into convictions which practical verifications will very considerably modify; and that so far as their published essays and their specification indicate, there is a lack of chemical originality in their inventions and expedients, which is in singular contrast to the boldness of their style and designs. But I seek for information and enlightenment; and that it may be certain I have not fallen into any material misconceptions of these gentlemen's system, I give, in as few words as possible, what I take to be the aim and scope of their proposed achievements.

1.—They propose to obtain cast metal (pig) by operating on a pulverised mixture of the iron ore, carbon, and the fluxing reagents; to work with gaseous (not solid) fuel, in the form of hot carbonic oxide—the gaseous products, in fact, of the combustion of ordinary fuel (used in excess) in atmospheric air, and consisting of carbonic oxide, plus only the nitrogen of the air. They propose so to conduct this operation, in respect of the degree of heat, and of the proportion of solid carbon used, that the iron of the oxide of iron shall be reduced to the metallic state, and be combined with the proportion of carbon needed to yield a very fusible or cast metal, before the full fluxing heat is applied to the silica, lime, &c. By this contrivance the iron is kept free from contamination with silicon, &c. And the fusible carbonised iron is then, and easily, separated from the slag, or the slag from it.

2.—They propose, by a different adjustment of the proportion of solid carbon—that is, by the use, in this case, of a smaller proportion—to make the same general kind of operations subserve the purpose of producing infusible malleable iron, and from which, after production, they separate the other constituents of the ore in the form of fusible slags.

3.—They propose, next, to make steel by means of the same general kind of operations, but by an adjustment of the quantity of carbon different in this case from either that used to give cast-iron, or that used to result in the production of infusible malleable iron. They propose thus to obtain a fusible compound of iron and carbon in which these two elements exist in those proportions which the old books and these revolutionising gentlemen innocently believe to alone constitute real steel.

Now, all these operations and results, as it will be seen, depend, in one essential point, on a mere difference in the proportion of carbon used, and in so managing the operations that in one result not a particle of this carbon shall be left, and in the other two results the proportion left shall be different in each case—but very accurate and definite in both.

Very close shaving, all this! And very wonderful the results, if only these results shall come out all right on what Mr. Babbage calls the "verification of the value" thereof. And, if all right, how glorious the prospect for the "Steel of the Future!"

Besides the exhilerating and agreeable confidence with which these gentlemen deliver themselves in their essays, they possess the rather rare qualification of writing clear and explicit English. There is no danger of misunderstanding what they mean to enunciate. When, therefore, one rises from a perusal of their very clear expositions with a vague misgiving that their philosophy is not quite so lucid as their writing—that they are not so fully posted up as would be expected in the modern chemistry of the subject they are handling—that one or two very material screws are loose in the logical machinery brought into play—one is naturally anxious, for the sake of the beautiful visions of the future which they conjure up, to have all doubts cleared away by the enquiries it is the object of this communication to make. Take, for example, Messrs. Hinde's exposition of the chemical principles involved in the old cementation process of the conversion of iron into steel. They reiterate an old and exploded doctrine; and upon, this, and with emphatic confidence, they found their new method of steel making. They make, in their proposed operations, no provision whatever in accordance with the modern doctrines of the formation and composition of steel.

Messrs. Hinde say (*Mining Journal*, p. 750, 1868) that in the manufacture of steel—

"Bar-iron of the best quality is enclosed in a fire-brick furnace, which is so constructed as to entirely exclude the atmospheric air. The iron is interstratified with charcoal, and is kept at a full red-heat for a week or more, according to the quantity of carbon it is intended to combine with the iron."

Again, they say that—

"Pure iron and pure carbon are all that are actually necessary for the production of steel. This is abundantly proved both by philosophical experiment and by daily practice. Steel has been formed by melting pure iron along with diamond dust, and it is manufactured regularly in Sheffield and elsewhere by exposing the purest malleable iron which can be obtained to the action of charcoal, either in a crucible or in a closed furnace, as in the cementation process."

Now, in this extract about as many errors, in fact and in inference, occur as it is possible to crowd into so brief a space. It is simply a tissue of obsolete scientific nonsense. If this be a type of the whole of Messrs. Hinde's reasoning, and of the depth of their searchings into the occult and really complicated phenomena involved in steel conversion, then, alas! for the "Steel of the Future," in the hands of gentlemen so innocent and so credulous.

First, it is not the fact that the Sheffield "fire-brick furnaces"—or rather gannister boxes—for steel making are closed against the admission of atmospheric air. The atmospheric air gets in, and plays therein a most important and indispensable part, as we shall hereafter show. Secondly, "philosophical experiment" never did prove that pure iron, plus pure carbon, made steel; but philosophical experiment has proved that a combination of these two elements alone does not produce steel. Thirdly, steel never was produced by "melting pure iron with diamond dust." In the traditionary and apocryphal experiments with iron and diamonds, made when analytical chemistry had not grown into a science, what proof have we that the iron was pure, or that they used any accurate test of its conversion? It is to be noted, moreover, that these experiments were made not to prove that carbon plus iron made steel, but that the diamond was carbon. Messrs. Hinde ought also to know that pure iron could not not be melted so as to receive the diamond dust. And that long before the heat would rise to a combining point even without melting, the diamond would be gone—vapourised or burnt, which diamonds easily are. This steel making by the carbon of the diamond is a scientific myth.

We have, for some time past now, been accustomed to a very different explanation of the conditions and phenomena of the cementation process. These are our modern instructions:—

"A bar of Swedish wrought-iron, for example, is embedded in wood charcoal in a stone box, loosely covered over to prevent the burning away of the charcoal. The box and its contents are kept at a red heat for from ten to fourteen days. At the end of this time the bar of originally pure iron, on removal from the charcoal, is found converted into steel. Now, what takes place is simply this:—Atmospheric air, consisting of nitrogen and oxygen, is present throughout the mass of red-hot charcoal. It permeates into, and cannot be kept out of the hot charcoal under the existing conditions. The first result is the formation of an atmosphere, surrounding the hot iron, of carbonic oxide and nitrogen. The law of diffusion of gases comes into play to promote and maintain the interchanging that follows. The next result is the assimilation by the iron (under some law of action of the real nature of which we, at present, know nothing) of those small proportions of carbon and nitrogen which analysis incontestibly proves to have been taken up by the iron in the act of conversion."*

This is the new rationale of the reactions and results pertaining to the old and well-known cementation process.

"The previous dream had been that the hot iron took into combination with itself some of the carbon lying alongside of it during the fourteen days, or thereabouts, of the cooking of these two elements. The little particles of red-hot charcoal were assumed to be in actual contact with the heated iron—that, at every point of contract, they combined together, and that this combining, beginning at the surface, went gradually through the whole mass of the metal. Ninty-nine parts (in round numbers) of iron did, in this way, get hold of one part of carbon, and thenceforth became, not iron, but steel—a substance as widely different from iron as pure silver is from lead, or as adamantine and brilliant diamond is from a piece of black, porous, crumbling charcoal. This was the old and universally prevailing explanation of the mode in which a bar of pure iron became a bar of steel under the ancient 'cementation' (as it is called) process, which always has been and is still practised, for the most part, in the Steelopolis of England. But suppose we look at this ancient and familiar process through the medium of another interpretation of its phenomena and its results, as we have already partially done—namely, instead of particles of solid charcoal lying in contact with the iron, and because of that contact—a very imperfect one—being but slowly absorbed by the metal, imagine a gaseous atmosphere eveloping the metal, and out of contact with which it is physically impossible for the iron to escape. Assume, further, that the iron contains (as it always does) a quantity, however minute, of protoxide of iron. Then, what follows this:—The carbonic oxide reduces the protoxide of iron to the metallic state, and sets free carbonic acid gas, the frustrated escape of which gives rise to the blisters on the steel bar. Simultaneously, carbon and nitrogen are assimilated by the iron, and these form real steel, and are found by analysis to exist in it. The balance of the conditions of the gaseous atmosphere in these reactions is preserved through the excess of carbon always present, and the slow but certain interfusion of fresh atmospheric air, with its oxygen, always nearly perfectly neutralised in the form of carbonic oxide. This is the true history of the cementation process. Real steel is a triple alloy of nitrogen, carbon, and iron. It is not simply a compound of iron and carbon only." *

That nitrogen, as well as carbon, was not merely an accidental constituent, but was essential to the production of real steel, was first formally and distinctly enunciated as a chemical fact only so recently as 1857. This was done by Binks in an admirable and exhaustive paper read before the Society of Arts in London in May of that year. Three years afterwards this English doctrine of the essentiality of nitrogen was adopted and verified in France, and made more public there and elsewhere through the medium of the Compte Rendû of the Académie of Sciences, and of the prolonged discussions that ensued. Prof. Fremy, of the University of Paris, and M. Caron, a director of one of the Imperial foundries, were the earlier of the verifiers of the truth of this new law. Since then it has gradually found its way into scientific convictions, and will as certainly influence all manufacturing operations that shall hereafter be found in the history of the "Steel of the Future."

But Messrs. Hinde totally ignore either the existence or the influence of this law. Those gentlemen have either never heard of it or they disbelieve it. They adhere firmly to the old creed, that steel is pure iron plus pure carbon, and nothing else. It would certainly not fit their projected operations for making steel did they think otherwise.

But a fallacy of another kind also appears to me, in the absence of further information, to run through the whole of this new system. Messrs. Hinde rely for the temperature requisite to work their operations on the convected heat of their carbonic oxide, mixed with nitrogen, as that gaseous mixture comes from the fuel-chamber. This hot, gaseous current carries with it, and supplies in their operations, both the heat and the reducing agent, and its reducing power is aided and kept up by the reservoir of solid carbon (in excess), which is mixed with the ground ore and fluxes. They do not seek to burn the carbonic oxide, or any portion of it, in order to obtain a high working temperature, but depend upon the temperature the carbonic oxide possesses on issuing from the combustion chamber.

Now, I venture to predict that whilst the heat so got is amply sufficent for the reduction of oxide of iron, it will fail them in fusing the slags, and even in forming them, as well as fail in melting the more infusible kinds of the carbonised iron—approaching the quality of steel—which they aim to produce. But regard to space will, no doubt, make you desire that a closer consideration of this part of the new system, and of the difficulties in management of operations it involves, should be made the subject of a further communication.

A CLEVELAND IRON SMELTER AND WORKER.

Eston, Cleveland, Feb. 23.

* Christopher Binks. "On the Chemistry of the Formation and Composition of Steel."

SEPARATION OF IMPURITIES FROM COAL.

SIR,—Although many inventions have from time to time been introduced for separating impurities from coal, comparatively few of them have proved capable of effecting the object in view, and those which have seem to have been anything but economic. When the coal is above 2 in. cube I believe it can be hand-picked cheaper than by any machine, and below that size a modification of the old-fashioned jigging-hutch is superior to any patented machinery which I have seen. But whilst I can speak with some experience concerning most machines, I must admit that one of the description patented by Mr. A. Homfray, of Halesowen, Worcestershire, I have never seen in actual work. He states that he constructs an inclined screen, the surface of which is divided into horizontal divisions. The lower edge of each portion into which the screen is thus divided is situated somewhat higher than the top edge of the portion next below it. The screen has thus a step-like figure. Between the bottom edge of one step and the top edge of the next below it there is an open space, to let the bats and other impurities fall through. The coal to be treated is put at the top of the inclined screen, and it is supposed that the coal in descending will acquire such a momentum that it will be carried on to the top of the second step, whilst the bats being flat, and specifically heavier than coal, will be carried through the opening. When the bats approximate in size and density to the lumps of coal, a bar is fixed at the bottom of the second step to arrest the progress of the bats. The bats and dirt that have fallen through the openings are afterwards washed to prevent waste of coal. He passes the mixture of bats and coal through troughs, to which a stream of water is supplied at considerable pressure, by preference by means of a hose.

At certain distances down the trough a bar is fixed, and a valve is situated under it, or a box and valve may be used; by the action of the water the coal is separated from any bats that may be mixed with it, the coal being washed down the sluices the heavier stone and bats remaining above the bar. If he desires to save all the coal above 2 in. diameter he fixes additional bars between those of a 4-in. screen, and proceeds as usual. The invention is applicable to wet and to dry screening, and to the treatment of other mineral substances besides ores.

I presume that during the six months which the law allows for completing the patent Mr. Homfray took the opportunity of ascertaining whether the contrivance would work, so that it is not unfair to ask him by what possible means the coal is prevented from packing on the bats, so that all will fall through the divisions between the steps together. I much question whether by Mr. Homfray's arrangement any material quantity of impurity would be separated, and more especially by the dry method, to which he refers; but assuming that he has already had the machine at work, it would be interesting to know the number of tons or hundredweights per day it is capable of separating per square foot of surface. SHALE.

March 4.

THE LECTURES AT THE ROYAL SCHOOL OF MINES.
"PENNY READINGS."

SIR,—The excellent suggestion, in the Journal of Feb. 20, that the valuable information conveyed in the Lectures delivered by Professor Smyth, at the Royal School of Mines, should be disseminated among those employed in the different colliery districts on the plan of the Penny Readings, is one which I should like to see carried out very fully. I read the Lectures carefully, and am greatly interested in their contents. I also read them to some friends and men in our employ; and, from the interest evinced, I am anxious that others connected with colliery workings should follow what I believe will be found to be a good example. The vast amount of mining facts collected by the Professor is in every way creditable to his perseverance, and it is certainly very desirable that such information should be as extensively circulated as possible. I cannot do better than reproduce the words of the writer which brought the suggestion to my mind—that "Nothing could be more easy than for superior employees to get together the men under them; and, having first well studied the summaries prepared to their hand in the *Mining Journal*, present them, if they like, chiefly in their own language, for the edification of the men. We venture to assert that no Penny Readings would be found half so attractive. There is room for all to work, and there is need for all to work." And where can work be rendered so agreeable as in imparting information to our fellows which is not only instructive, but interesting and useful in their employ?

What I should like to see is that some competent person, delegated by either masters or workmen, should undertake, as travelling lecturer, this series of Penny Readings, and which, I feel assured, would not only prove remunerative in pecuniary results, but the "instruction" be estimated by the audiences they would assemble at the rare value it merits.

We have thought, indeed, that the matter is quite worthy the consideration of Mr. Walter Williams, the new chairman, as being a question that should be brought before the Mining Association, especially as we have heard that the subject of Technical Education is to come prominently before that body. COLLIER.

Wakefield, March 3.

ON THE CAUSES OF COLLIERY ACCIDENTS.

SIR,—I have at various times addressed you on this subject, and other practical persons have laboured in the same field; it is, however, to be regretted that efforts for the prevention of colliery accidents have resulted in so little success, and that accidents, particularly those arising from explosion of fire-damp, have of late been very frequent. There is now established a system of inspection by the Legislature of this country, and a spirit of enquiry is abroad as to the causes of these calamities, which I will hope may ultimately lead to a more satisfactory state of things. There is in some colliery districts almost an immunity from explosions of fire-damp; in others they have been frequent of late, showing there is a want of that skill and caution which are so essential to the object we are endeavouring to attain. In the first place, I may refer to the recent enquiries into the causes of the explosions in Lancashire and elsewhere, and in nearly every case the accident has been supposed to have been caused by the firing of shots, and this, also, where the use of safety-lamps was enforced. Had the working of coal been carried on without the use of powder, these explosions would probably not have occurred. This is the more to be deplored, because shot-firing was allowed without any restriction as to its being under the care of properly qualified and authorised persons; and this matter will, doubtless, be dealt with in a proper manner in the measure for the prevention of accidents in coal mines which will shortly be introduced in the House of Commons; this, with other measures having for their object the prevention of accidents, such as an improved system of Government inspection, a more careful training of underground officers, from the fireman to the viewer, will, we may confidently hope, afford greatly increased safety in the underground operations of collieries. Having regard to the value and sacredness of one single life, and our credit for successful practice and the scientific management of coal mines, these considerations, I trust will have sufficient weight to cause our legislators to bring forward an effective and comprehensive measure in Parliament for the avoidance of colliery accidents.—*March* 2. C. V.

WHAT IS THE CAUSE OF BOILER EXPLOSIONS?

SIR,—A locomotive boiler has exploded in the United States, under circumstances in which no theory of low water or formation of gas is admissible. The blower was used until a pressure of 130 lbs. was reached, when the usual "off-brakes" was blown, and the engineer told a brakesman who was on the engine to close the blower, and was in the act of pulling the throttle, when the boiler exploded.. The boiler gave way in the gusset or throat sheet, about 10 or 12 in below centre of boiler. There was an internal defect in the sheet at that place; it was not welded, but laid in separate layers, each probably not over 1-16 thick. The force of the explosion was upward and to the right; as the defective place was immediately opposite a driving-wheel, it forced it from the axle in fragments, cutting the tire like lead. All the cylinder part of boiler was torn to pieces, and the wagon top to dome joint. The iron is torn in every direction, but there is not a place where the riveting has given way and where the sheets are torn, the fracture ceases when it comes to a line of riveting The iron is not over ¼ thick, and is of good quality, with the exception of two or three defective places, that are internal defects that the most careful examination could not have detected. The cause of the explosion was weakness of the boiler, which is probably the cause of all boiler explosions; but the question is as to the more immediate cause of the accident. The blower was ¼ in. diameter, and steam issued from it at the rate of 1000 feet per second; and it is suggested that in shutting off the blower this current of steam was checked; while a gush of flame filled the fire-box and flues, by being checked by the closing of the blast. As the weakest point always yields first, and the steam and water thus liberated expanded, as is shown above, and the flow took place towards the vent, the momentum of the water with its pressure tore everything in its way, until its force was spent. This is apparent from the flues, which are spread out and scattered as if to give room for the water to escape, and the outside flues are flattened, as if they had been forced against the boiler before it gave way. The force exerted is something wonderful, when we take into account that the wheel had been put on with a pressure of 60,000 lbs., and a well-fitted key driven in afterwards, and then the tire shrunk on. The frame of 4-in. square iron, was broken off, and the reverse arm, weighing probably 100 lbs., was thrown about 500 yards. The probable objection that water or steam is not capable of thus acting is met by the enquiry—Is not this the same principle as the injector as well as of the steam-pump, where the steam acts directly against the water, and forces it into the boiler, against the same pressure as started it? B.

IMPROVEMENT IN MINING PROSPECTS.

SIR,—Mining in Cornwall and Devon, so much depressed since the panic of 1866, has at last taken a turn. Tin dropping from 90*l.* per ton in the ore to about 44*l.* caused the shutting up and abandonment in very many instances of a vast number of mines. Much has been said about the Stannary Court and the Stannary Laws. As long as a mine can pay its way there is no fear of the Stannary Court or its laws. In forming new companies, if people would only subscribe the

capital required to work a mine judiciously and prudently, instead of taking long credit, and making calls to pay the merchants' bills, &c., the world would not hear so much about losses incurred in mines. Not a tenth part is lost in mining speculations compared with other investments, as the last three or four years bear testimony to beyond a doubt. Yet people cry out, *do not go into mines*. Now, I say, name the investment where so much money has ever been made with an equal amount of capital on an average invested. Mines get the fault for all the losses, whilst many other investments lose, on an average, 50 per cent. to 1 per cent. in mines. I am not alluding to all mines: many of the most ridiculous things are continually being brought before the public in the shape of gold investments. It is not all gold that glitters, or will be found to wash, as the Lancashire manufacturers say. One rich mine invariably leads people to invest in anything in the same district. One slice of luck leads the British public to invest, without judgment or reason, and all sorts of trash is taken up as good investments. One extreme invariably leads to another: an abundance of any commodity leads to the neglect of cultivation; then follows a scarcity; *vice versa* is the result, as is now the case with the article of tin. The consumption of tin is, doubtless, now beyond the supply, consequently a great advance in price must take place ere long. I venture to say as much, as a miner of some 30 years' experience.—*March* 2. THOMAS GITTUS.

THE MINING EXCHANGE.

SIR,—During the past few months I have, with regret, noticed how rapidly the number of members of this once prosperous body have decreased, and without, so far as I can see, any valid cause. In November, 1859, the number of members was close on 80, while it does not now consist of above a quarter of that number. To effect such a falling off as this there must be some powerful influence at work, for, on reference to the present list of members, I find that quite recently some of the most influential gentlemen have left the institution. Unity is strength; but dissension, without apparently any reasonable grounds, must prove greatly injurious, especially to so young an institution as this. Why do not the committee, or some of the leading members, try to introduce a spirit of conciliation? Things cannot go on much longer as they are at present, and so soon as the apparent want of amity is removed so soon will there be a return of confidence on the part of the public, not only in the mines themselves, but in those through whom their transactions are carried out.

I thus call attention to this matter in the hope that those in connection with the Mining Exchange will take steps to check the evil in time, or they may depend that what has and can again prove a profitable source of revenue to the Exchange will pass to the seceders —those who are now, and shortly will become, members of the Stock Exchange. As an outsider, I am aware that dealings with members of the Stock Exchange are generally easier carried out than with what was once our legitimate Mining Exchange, and I, amongst a number, can take credit for introducing a considerable amount of business that would have, under ordinary circumstances, found its way into another channel, and I hope to introduce considerably more; but if the present exclusive system is persisted in I am much afraid that the Stock and not the Mining Exchange will reap the benefit.

AN OUTSIDER.

LATEST AUTHENTIC NEWS FROM MEXICO.

SIR,—The last dates from Vera Cruz are to Feb. 2. Mr. George and Joseph Gibbs had arrived in Vera Cruz, and had started for the city of Mexico; the latter gentleman was to remain in the country as resident director and agent to the Mexican Railway Company.

The Real del Monte Mining Company will declare a dividend of over 30 per cent., the net profits being at the rate of 200,000*l.* for the year.

The railway works were being vigorously carried out, in order to complete the line between the city of Mexico and Puebla for May 5, the anniversary of the defeat of the French before the latter city.

Dr. Matias Romero, the Minister of Finance, has addressed a letter to a gentleman in London, dated Mexico, January, 1869:—

DEAR SIR,—I received your favour of Dec. 1, and I am greatly obliged to you for the information you give me. I will have a conference with the Minister of Foreign Affairs, Mr. Lerdo de Tejada, with respect to the renewal of diplomatic relations with Great Britain. Many acts have been passed in Congress to induce capitalists to invest in mining, such as the free export of all minerals, and the reduction of mining dues; and before Congress closes this session many more priviledges will be granted, making mining more profitable.

I remain, &c., MATIAS ROMERO.

Our correspondent from Mexico corroborates the decree given by Congress for the free exportation of all minerals, and says—"I expect we shall soon have free export of bar silver, as the Bill passed for the free export of minerals was carried by a majority of 74, against 17. Congress has also granted to an American Company the concession for building a railway across the Isthmus of Tehuantepec; also, a line from Texas to Guaymas, in the State of Sonora."

As usual, not one single word as to revolution has been written by the last mail, therefore the telegrams from New York are concocted as usual, in relation to Mexico.—*March* 2. S.

EAST WHEAL LOVELL, AND ITS MANAGEMENT.

SIR,—Your complainant in the Journal of Feb. 27 is not the only one, by a great number, who has questioned the management of this mine, and, since the encomiast of the respected purser has thought proper to state that in January last 1000*l.* were paid as dividends out of profit, I should be glad to be acquainted with the principles upon which Mr. "T. B." makes out his case to uphold such a statement. What merchant, it might well be asked, would form such an estimate of profits when, at the same time, a fixed debt of the like amount, and very probably more, stood suspended over him? It matters not to me, nor ought it to any other man, what Capt. Quentrall may or may not have done in the interim, while a dividend stood suspended, or a legal and proper meeting remained unconvened. Nor is it of the slightest moment what estimate Mr. "T. B." may entertain regarding a "small shareholder." I must be permitted to tell that gentleman that justice, equity, and propriety—nay, probably something more touching still—equally point to the well-recognised fact that the small shareholder is equally entitled to call for the proper, discreet, and honourable management of his property, and, moreover, as fully entitled to express an opinion upon all matters relating to the adventure, as the large shareholder, and that, too, notwithstanding the great shareholder should happen to be the "respected purser."—*March* 3. A SMALL SHAREHOLDER.

CHIVERTON MINE—THE BOUNDARY.

SIR,—Now that it appears evident the recent discovery will lead to a permanently rich mine, and that after sinking 30 fathoms the lode, instead of being cut out, is looking more promising and richer than ever, the "bears," not being able to say anything bad of the mine, are beginning again to talk about the boundary question, and hinting that justice will be done to Chiverton in the Court of Equity. "Private and confidential" letters are sent to some shareholders, advising them, for "obvious reasons," to sell their shares. Allow me to say that, privately, a majority of shareholders have decided, so far as Chiverton is concerned, that there shall be no lawsuit. The boundary question has been settled by the landlord, Mr. Peter; and although Chiverton may have been unjustly dealt with, yet no one believes that anything would be gained by litigation. There has been an addition to the sett of about 17 fathoms, taken from Mineral Bottom. This will make Chiverton about 100 fathoms in length on the north and south lode. It must not be forgotten that, in addition to the rich lode now being worked, there are several east and west lodes going through the sett, and known to be rich in West Chiverton, only 30 fathoms off. The extent of Chiverton sett from east to west is more than 400 fathoms.

I would again advise shareholders at a distance not to be frightened out of their shares. The next meeting will show, for the first time, a profit on the three months' working. It may not be generally known that, at the next meeting, the proxies used at the last meeting will be again available, the last being an adjournment. I think that people who give their proxies to a stranger, merely because he writes to them and promises to look after their interests, make a great mistake. A SHAREHOLDER.

WHEAL CHIVERTON.

SIR,—I saw in your valuable Journal the other week a letter advising shareholders, as no report appears, to hold fast their shares in the above mine, and so punish the "bears," whom, I am sorry to say, are on the increase in Cornwall. Chiverton is better worth at this moment 20*l.* a share than they were 7*l.* when the lode was cut so shallow. Shareholders at a distance should have the opinion of a competent person before parting with, I think, one of the most promising speculations of the last ten years. A SHAREHOLDER.

P.S.—March 1: Just sampled and sold 56 tons of lead, and at least double the quantity ready to come to grass from the 18 fm. level. This is more than enough to pay the cost for six months. In addition, the north winze is now worth 10 cwts. of lead per fathom. The south winze contains lead; I do not know how much, and the shaft contains a little lead, with spots of copper, mundic, &c., showing a strong and masterly appearance.

NEW CLIFFORD MINING COMPANY.

SIR,—In the report in last week's Journal of the late meeting of the Clifford Amalgamated Mines, Mr. Edward Cooke is reported to have said that "if the mines (Clifford Amalgamated) stopped all the other mines in the district would be affected." I feel bound, in the interest of the New Clifford Mining Company, to state that the stoppage of Clifford Amalgamated will not in the least influence New Clifford, and, at the same time, to express my surprise at Mr. Cooke's ignorance as to the fact of there being a Great Cross-Course which protects all the mines west of the Amalgamated; and New Clifford, being fortunately one of these, cannot in any way be affected by the operations at Clifford Amalgamated being suspended. MATTHEW GREENE, Sec.

Pinner's Hall, Old Broad-street, March 5.

MINING IN MONTGOMERYSHIRE—THE VAN MINE.

BY J. Y. WATSON, F.G.S.

The VAN MINE, situated about two miles from Llanidloes, in Montgomeryshire, is held under lease (16 years unexpired) from Earl Vane, at 1-14th royalty, and was worked for several years by a few local proprietors, the late Mr. Morris, of Oswestry, being the principal shareholder, and under the management of its present agent, Capt. Williams. About three years ago the lode was first intersected in the adit cross-cut, and from that time to the sale of the mine at the commencement of the present year, lead ore to the value of about 28,000*l.* was raised and sold. The late proprietors drove what is called the 15 fm. level *above* the adit for a considerable distance; the deep adit nearly 130 fathoms, and the 15 fm. level, below deep adit, over 60 fms., and from these places and the back of the 15 fm. level the returns of lead above mentioned were obtained. They seem never to have attempted sinking the shaft below the 15, but sunk a sump-winze a short distance from it, 15 fathoms deeper, and drove out towards the lode without cutting it. This was the position of the mine before its sale to the present company.

In the autumn of last year the executors of Mr. Morris offered the entire mine to Messrs. John Taylor and Sons for the sum of 40,000*l.*, and those gentlemen declined it. It was then offered to one or two others in the mining market, and eventually purchased about four months ago for 46,000*l.* It was then made into a limited company, in 12,000 shares of 4*l.* 5s. per share, paid up in full; the limited company taking the profits of the mine from Feb. 1.

On Tuesday, Feb. 23, I spent nearly the whole day on the mine, and was underground about three hours, and through all the workings with Mr. Jehu Hitchins, and I beg to offer you my notes made on this occasion.

In commencing the mine an adit cross-cut was driven into the hill 152 fathoms before it cut the lode, about three years ago; and the deep adit, which is now 15 fathoms below this point, has been driven 136 fathoms (72 fathoms east and 64 fathoms west of shaft), through a lode in places 8 to 10 fathoms wide, very rich in places, and in others poor, but, on the whole, one of the finest and richest lodes I ever saw. The deepest level (15 fathoms) below this adit has been driven 33 fathoms east and 37 fathoms west, through a splendid lode, which is being stoped in the backs, and producing 150 tons of lead ore per month. As the levels are being driven in the flookan, or, as it is called, "sticking," by the side of the lode, neither of the ends were being worked, but one, I understood from the agent, was worth 8 tons of lead per fathom, and the other equally as rich.

The shaft has been sunk about 4½ fathoms below the 15 fm. level, and is just getting into the dip of the lode, worth full 3 tons of lead ore per fathom. A sump-winze, however, only a short distance from the shaft, has been sunk 11 fathoms deeper than the bottom of the shaft, and a cross-cut driven from the bottom into the lode 4½ fms., the end in very hard rock. Soon after this cross-cut was commenced a rib of lead, which had it continued would have been worth 2 tons per fathom, was met with, but it did not last, and the cross-cut has been driven some distance from it, poor. The agent is confident, however, the main part of the lode is still ahead, and I trust it may be so, for on this point, as will be seen hereafter, the great prosperity of the mine will depend. The shaft is being sunk at the rate of nearly 2 fathoms a month, and it will take six months to get it down to the depth of the sump-winze.

The present machinery consists of a 30-in. cylinder engine and large water-wheel; the dressing-floors and everything connected with them, and the machinery, are admirably laid out, and reflect great credit on the agent, Capt. Williams. A larger steam-engine, together with extra crusher and stone-breaker, have to be erected, and the floors extended, before any much larger returns of lead (150 tons a month) can be made, and this may take three to six months to complete. The vendors of the mine, as I said before, raised and sold 28,000*l.* worth of lead, chiefly from the adit and back of the 15, and the purchasers prior to Feb. 1 must have sold about 300 tons more from the latter place. The present company, I understand, take the lead raised from Feb. 1, which is 150 tons, worth (say) 2000*l.*, raised at a cost of 850*l.*, profit 1150*l.*, which is about the monthly profit that can be fairly made for the next six months, *without* calculating the cost of the new machinery and dressing-floors. The lode in the deep adit and in the 15 below is very peculiar; in places a cross-cut has been driven 5 fathoms through it, not averaging 4 cwts. of lead per fathom, and a little further on it will open out into a huge belly of lead, worth 10 and 20 tons per fathom. This happens frequently, and the lode requires the greatest care in working, and the present agent seems to understand it thoroughly; it is so large that no timber can support it, and, consequently, has to be stoped cautiously, and with judgment; and every stope, when the lead has been taken away, has to be filled up again with rock for supports. To obtain this rock, levels have to be driven in the "sticking," and also through dead ground at some expense, and it may be a question hereafter whether rock for the purpose will not have to be sent down from the surface.

Another great peculiarity in the mine is gas, which flows from some of the levels, and may be easily ignited. Sometimes it makes a noise like thunder, and forces the water out in such a stream that the men have to get away in a great hurry; they also have to work sometimes with safety-lamps.

It will be seen from the above remarks that the mine has but one level below the deep adit, but this is very rich, and there are very considerable reserves above it, out of which, and from the ends, the present returns are made; and should the next level prove as rich as the 15, the mine will, undoubtedly, take rank as one of the richest in the kingdom. The shaft, which is down 4½ fathoms below the 15, and worth 3 tons of lead ore per fathom, would be more important were it not for the winze near it, which is down 11 fathoms *deeper*, and at present poor. The richest lode in the mine makes in hard rock, by the side of what is called the "sticking," and this sticking is wearing out in depth; the lode appears to master it, and the hard part of the lode north is now the most productive for lead. This is a good feature for the cross-cut from the sump-winze, which is driving north, and may not, therefore, have reached the productive part.

The mine is in 12,000 shares, 4*l.* 5s. paid, and the returns for the next six months may be estimated to give 1000*l.* to 1200*l.* clear profit, and should the lode be found equally rich in the 30 as in the 15 the returns could be considerably increased.

1, *St. Michael's-alley, Cornhill, Feb.* 27.

[From Y. CHRISTIAN'S "Financial Gazette" for March.]

NORTH LEVANT.—For the last time probably have we the opportunity of repeating entreaties to our readers to invest in the shares of this mine before the rise will take place. Already the price of the shares has begun to spring. Not very many months ago the quotation was 5 or 6; gradually it rose to 10 and 10⅛ to 11. The figure for the shares is now 11 to 11⅛. A few days, and only a few days, are still left for those who have been hanging back in their commissions to purchase. Tin is still on the advance. There has been a rise of no less than 10*l.* per ton within the last seven days, making a total advance of 32*l.* per ton during the twelvemonth. This being the case, and with the certainty that a dividend on North Levant shares will be declared at the half-yearly meeting, to take place before the middle of March, we may reasonably look to see the price of the shares go up to 15 or 16, and then those who want them will have to search far and wide for sellers. Mr. Christian can but appeal to the whole series of the "Financial Gazette" to establish his unvarying recommendation of the North Levant as a mine especially worth the attention of persons who could afford to wait a while for their profit. The return, he prognosticated, would be large; and now, at the last moment, he repeats his advice —with the difference, that a considerable profit is safe long before the next half-yearly dividend, to be declared in October. Last month we had to mention that the Levant, the mine lying immediately to the south of the North Levant, had declared a dividend of 4*l.* per share. We have now to record that the Botallack Mine, which neighbours the North Levant on the other side, has declared a dividend of 10*l.* per share. Wheal Owles, another mine immediately contiguous, has performed a similar pleasant duty to its shareholders, having declared a dividend of 52*l.* 10s. per share; and from both mines the news is that there is abundance of ore at hand to continue dividends for years to come. The accounts from the North Levant itself are more than satisfactory. They are, in truth, as good as the most sanguine mind could hope for. Every month's return speaks to larger rates of profit. No mine in that peerless district of the mineral wealth of Cornwall, St. Just in Penwith, is at this moment returning so large a profit, for the capital engaged, as is the North Levant. The high price of the ore brings out the great value of the old workings, which it was the wise policy of the conductors of the North Levant to incorporate with their own sett. There are times when all is fish that comes to the net; so there are times when every scrap of ore is worth its shilling, and this present year is one of them. A practical miner said, some time since, that the improved mode of treating the ore, and the general superiority of the most modern appliances and machines, would enable the adventurers to derive as much profit from tin ore at 70*l.* per ton as they were accustomed to do when the ore fetched 80*l.* This was stated in the time of extreme depression, when ore was down below 60*l.*; but the price is now fully up to 80*l.*; what, then, must be the profit for those who have ore to sell? That the North Levant has, and will continue to have, ore for sale is evident from the last report received from the managers of the mine, under date Feb. 24, as follows:—"During the past week we have cut Hunt's lode at the 60 fathom level, in driving on the Scorren from the Stennick; the lode is worth 7*l.* per fm. The stopes in back of the 50 west on the lode are improved from 6*l.* to 10*l.* per fathom." There are, as we said before, but a few days left for those who desire to get the full benefit to be gained from North Levant shares. Mr. Christain pledged his reputation on the result a twelvemonth since. He reiterates the pledge, satisfied that his readers have seen his advice confirmed month by month.

STANNARIES LAW AMENDMENT.

In moving for leave to introduce in the House of Commons the bill for the amendment of the law by which mining partnerships in Cornwall and Devon are at present regulated, and which was published in extenso in the Supplement to last week's *Mining Journal*, Mr. ST. AUBYN said that the measure had not for its object to legislate for one part of the country in prejudice to the rest. It had reference to a state of things which existed in Devon and Cornwall alone, and nowhere else. It was not a penal or a restrictive Bill, but an enabling measure to bring the existing law of England into harmony with altered local circumstances, and remove the obstacles which now hampered the jurisdiction of the Stannaries Court. That Court had a jurisdiction of two kinds—a common law and an equitable jurisdiction, and the Bill had reference chiefly to the latter. That equitable jurisdiction extended to all disputes arising out of mining transactions in Devon and Cornwall; mines worked on the cost-book system—as nearly all the mines in those counties were—being entirely under the control and regulation of the Stannaries Court. The House would, therefore, see of what vast importance it was to the mining interests of the West of England that the proceedings of a Court having so extensive and peculiar a jurisdiction should be rendered as complete, as simple, and as expeditious as possible. The Bill had another object of equal if not greater importance, which was to bring the Cost-book System to a certain extent within the general law which regulated public companies. The Acts of Parliament which regulated public companies in England did not apply to mines in Devon and Cornwall, inasmuch as these were not in the nature of public companies, but were private partnerships, and by section 68 of the Joint Stock Companies Act of 1862 they were expressly excepted from the operation of that Act. When it was determined to work a mine the adventurers assembled and divided the whole adventure into a certain number of shares, which they allotted as they thought proper, and then applied for a licence to search for ore. They appointed one person to act as manager, who kept what was called the cost-book. In that book the manager entered the costs, the names of the shareholders, the resolutions passed at the meetings, the calls, dividends, and accounts, and generally everything relating to the management and engagements of the mine. The adventurers met at stated intervals, generally of two months, and proceeded to audit the accounts. If the adventure had been favourable, they declared dividends; if unfavourable, calls were made to meet the expenses incurred. The partners had the power of transferring or relinquishing their shares at pleasure and without consulting their co-partners. From what he had said the House would see that mining adventures were very different from trading partnerships on the one hand, or joint-stock companies on the other. The system was deficient in many respects. Calls were made at present only after a meeting of shareholders for auditing the accounts, and could be paid only to meet expenses already incurred. It was proposed by the Bill to give to the shareholders a more general power of making calls. It had been held that accounts could be legally audited and calls consequently made only when a majority of the whole of the shareholders were present, and it very often appeared to be the interest of particular shareholders to prevent a full meeting from being held, and therefore they stopped away themselves and induced others to do so. It was proposed in this Bill to give the majority of the shareholders present at a meeting power to audit the accounts, and make a call should they think it desirable. A call at present was nothing more than an agreement among the shareholders to pay, and there was no power to enforce payment except on application to the Stannaries Court, which might give authority to sell the share. It was proposed by the Bill to give the shareholders the same authority of declaring the shares of a defaulter forfeited as was possessed at present by joint-stock companies, and, further, a power to bring an action at law against a person whose liability might not be satisfied by the sale of his shares. It was in the power of any adventurer at present entirely to relinquish his share, and in that case the share became dead or extinct. The Bill proposed that it should be kept alive, and that it should be in the power of the rest of the shareholders to sell or dispose of the share in the same manner as a forfeited share in a joint-stock company. There was also an important provision with regard to the sale of a mine. In selling the lease of a mine at present, it was necessary to have the consent of every single shareholder. But in the case of 500 or 600 persons who might have shares, that condition operated practically as a bar to the conveyance of a good title. It was, therefore, proposed in this Bill, that under certain very careful restrictions, at a meeting called by special notice, a majority of three-fourths might have power to sell the mine. Such were the principal provisions of the Bill, which had been framed with a view to carry out the unanimous wishes of the whole district to which it applied. It had been drawn up, not in haste, but after the most careful and elaborate discussion at general meetings, and it was conceived in an honest and fair spirit, which he hoped would recommend it to the favour of the House. (Hear, hear.) He begged to move for leave to bring in the Bill.

The ATTORNEY-GENERAL saw no possible objection to the introduction of the Bill, and was inclined to think that when it came before the House they would be disposed to agree to a great part of its provisions, and to regard them as an improvement in the law.—Leave was then given to bring in the Bill.

FOREIGN MINING AND METALLURGY.

The comparative mildness of the winter has rendered the position of the Belgian collieries if not precarious, at any rate less brilliant than might have been hoped. Prices are feebly supported for domestic qualities, but the case is different as regards industrial qualities and coke. At Liége, as well as at Charleroi and Mons, some of the most far-seeing managers of workings have decided to slacken their production to a certain extent. Prices and freights remain at about former rates. Few new orders have been received by Belgian industrials or mechanical firms. Some locomotives for Italy have, however, been ordered from a Liége establishment. This circumstance has been regarded with much satisfaction, as the Belgian mechanical construction workshops have not shared to any material extent in the revival in affairs which has generally characterised the last two months. At Charleroi rolled iron, No. 1, is quoted at 6*l.* 4s.; ditto, No. 2, 6*l.* 16s. per ton. No. 2 plates have made 8*l.* 8s., and boiler-plates 9*l.* 4s. per ton. The Industrials of the Charleroi group have been occupying themselves a good deal with the Luxembourg Railway incident, and they feel how perilous may be the situation created for them by any eventual hostility between the Eastern of France Railway Company, the Luxembourg Railway Company, and the Belgian State system. Charleroi is considered by some to be on the decline as regards the manufacture of pig. The cause of this is simple. Minerals make default on the spot, and it has been necessary to seek a large quantity abroad, either in the Luxembourg or in France. To reach the blast-furnaces Belgian minerals must also borrow the Luxembourg lines; and when those lines are brought under the management of the Eastern of France Company no one knows what may be the tariffs adopted. Some persons appear, however, to regard the assumption of the Luxembourg lines by the Eastern of France in a hopeful light, and there are two sides to the question. The Belgian General Gas Company—which has works at Arras, Bergues, Cambrai, Catana, Charleroi, Chemnitz, Dunkerque, Fourmies, Herstal, Louvain, Marchienne-au-Pont, Prague, Rimini, St. Omer, Sienna, Tournai, and Valenciennes-Anzin—sold during September, October, November, and December, 1868, and January, 1869, 179,705,596 English cubic feet of gas, as compared with 168,784,802 English cubic feet in the corresponding months of 1867-8, showing an increase of 10,920,794 English cubic feet in 1868-9. The Belgian Company for the Construction of Machinery and Railway Plant is now paying a dividend of 1*l.* per share for 1867-8.

The total profits realised on its investments in 1868 by the Belgian General Company for Promoting the National Industry amounted to 192,415*l.*, as compared with 199,527*l.* in 1867, showing a decrease last year of 7112*l.* In the course of the past year the General Company purchased 300 shares in the Marcinelle and Couillet Company, 20 shares in the Charleroi United Collieries Company, and 200 shares in the Couchant du Flénu Collieries Company. At the close of 1868, the value of the General Company's investments in collieries was estimated at 1,030,194*l.*; the income derived from these investments in 1868 was 62,186*l.*, being an average return at the rate of 6·04 per cent. per annum on the capital employed. The value of the investments made by the General Company in metallurgical industry was estimated at the close of 1868 at 288,750*l.*; the income derived from these investments in 1868 was 9076*l.*, being an average return at the rate of 3·14 per cent. per annum on the capital employed. In 1867, the average return realised by the General Company upon its colliery investments was 6·65 per cent.; in 1867, the General Company's metallurgical investments also produced a return of 8·30 per cent. The Prussian Government has granted to some English and Belgian capitalists the concession of a railway line from Antwerp to Mayence, *via* St. Vith. The shareholders in the Ellendorf Mines and Blast-Furnaces Company have resolved to resume operations; the manager, who had sent in his resignation, has withdrawn it.

We have not much change to report in regard to French metallurgy—that is, in the state of the French iron trade. In November, 1822, a company was formed at Lyons under the denomination of the "Loire and the Isère Foundries and Forges Company." In March, 1839, the name of the company was changed for that of the "Forges and Foundries Company of the Loire and the Ardèche. January, 1859, witnessed another change, the undertaking being transformed into the "Terrenoire, LaVoulte, and Bességes Foundries and Forges Company." Ten years have slipped away, and now the Emperor Napoleon has signed a decree approving certain changes made in the statutes of the company. The revenue acquired in January by the Parisian Company for Lighting and Heating by Gas amounted to 168,475*l.*, as compared with 158,655*l.* in January, 1868, showing the substantial increase in the first month of this year of 9820*l.*, or 6·19 per cent. The Bességes Colliery Company will hold its annual meeting at Nîmes, April 3.

The Havre copper market has been quiet of late. Chilian in bars has ranged from 72*l.* 8s. to 72*l.* 10s. per ton, Paris conditions; the market closed on these terms, without an animated tone. On the Paris market there has been some feebleness in prices, and only a comparatively limited amount of business has been done. Chilian in bars has been quoted at 72*l.* 16s. to 73*l.* per ton. At Marseilles, Toka has made 72*l.* per

ton, and refined Chilian and Peruvian 78*l.* per ton. On the German markets copper has been better supported than it has been elsewhere. The rise which has lately appeared in tin on the French markets has become more decided; Banca has made 118*l.* to 120*l.* per ton at Havre, and Straits has brought 118*l.* per ton at the same centre. At Paris, Banca has been dealt in at 120*l.* to 124*l.* per ton. On the German tin markets the tendency is very firm; at the same time the advance in prices has not been very great at present. At Cologne and Berlin there has not been any sensible advance in the price of tin. The Dutch tin markets have presented a satisfactory aspect. At Amsterdam there has been a good current of affairs in Banca, and prices have ranged between 66¾ fls. and 67 fls.; on favourable advices from England they have even been carried to 69 fls. At Rotterdam speculation has carried the price of Banca to 70 fls., and even at this rate sellers are rare. The little Billiton disposable has found purchasers at Rotterdam at 69 fls., while Billiton under sail has made 69½ fls. The Society of Commerce has at its disposal about 62,000 ingots. At Havre 100 tons of soft Spanish lead, first fusion, has brought 19*l.* per ton; at Hamburg the article has displayed a more favourable tone. Rough Silesian zinc, delivered at Havre, has made 22*l.* 4*s.* to 22*l.* 8*s.* per ton; zinc from other sources has brought in the same centre, 22*l.* to 22*l.* 4*s.* per ton. At Havre, Silesian zinc has realised 20*l.* 12*s.* to 21*l.* per ton. On the German markets zinc has displayed a firm tendency. At Hamburg, in consequence of the firmness which has characterised affairs for the last few days, holders have somewhat raised their terms.

FOREIGN MINE.

EL CHICO.—J. R. Rule, Jan. 28: The cutting down of El Torno shaft meets with some soft ground, which requires securing, and causes some extra time to be occupied in this work; but I consider it a good work, and that it will make an excellent and most useful shaft—one of the most valuable things a mine can have, after the discovery of ores. On the 23d inst. we had 685 cargas of silver ore in our hacienda of San Pascual, and we expect a large supply of future from the San Buena Ventuna and San Eugenio as these mines are extended.

FRONTINO AND BOLIVIA GOLD.—Mr. George Rouch (Jan. 14) sends usual advices, and remittance of 545¼ ozs. of gold, the produce of December, being 202½ ozs. in excess of the return of previous month. The profit on the month's working was 254*l.* 5*s.* 10*d.* Mr. Rouch remarks that the month's accounts "show a satisfactory and gradually improving state of your company's establishments here. This is only a beginning of the improvement I have always told you would take place; it is not a mere temporary but a steadily increasing success." Speaking of the Frontino property, Mr. Rouch says, "Almost the whole of the hills of which the Frontino property is composed are covered with a thick deposit of gravel, and in it at very many places in different parts of the property a 'pinta,' or slight show of gold, can be seen." Mr. Rouch, therefore, tried the experiment of going "down to the bed rock, and the lower the less gold. We then tried the hill near the back of the lode on which the present mine of the company is, and got about 83 castillanos. We now know that the wealth of the Frontino property consists in its lodes, and that there are more of them than have been up to the present time actually discovered. This is encouraging, although if the stream gold had been there, as it is on the other side of the range of mountains, it would have been an enormously rich affair." Mr. Grieff (Dec. 29), in reporting on the Bolivia Mine, states that the returns from these mines continue to improve, and that, too, in spite of the suspension of some of the mills—the 12 heads at the Chorro, 6 at the Salada, and 6 at Juan Criollo, from various causes. The company's properties are now permanently established, as proved by the actual results of the works now in operation. If, however, they give him power to open other mines he is confident very good returns would be made in the future. The Frontino Mine (Dec. 26) is looking remarkably well. The main level has been driven during the past month 1 fm. 6 in.; lode 18 in. wide, and rapidly improving both in size and quality; set to two men, for the month, at $50 per fathom.

SAN PEDRO DEL MONTE SILVER.—W. H. Bishop, Jan. 23: Santa Elena shaft continues to be sunk with all possible force. The new end driving south, on Wilson's lode, has considerably improved during the past week. The lode in the winze sinking under this level is also looking better, and producing more ore than it did for the first part or the month. We have had a very hard bar of ground in the cross-cut west of this level to intersect the San Pedro lode, consequently our progress has been slow. The stopes south of Wilson's winze are producing about the usual quantity of ore. The same remark applies to the two stopes in the San Pedro adit. San Enrique end is still behind the shoot of ore driven through in the level above. We have not dressed quite so much ore as last month, but from the mine assay it is of a higher ley, especially that raised from the San Pedro section of the mine. We have beneficiated 14¾ tons of ore during the month, giving 469 lbs. 2 ozs. of amalgam, of which 321 lbs. 2 ozs. are retorted, producing 820 ozs. of silver.

MARIQUITA.—Jan. 20: Santa Ana: Owing to the illness of my copying clerk, and having been myself very much engaged, I am unable to remit all the documents which I wished by this opportunity, but such as are wanting, as copies of some letters to Mr. Brandon, and minutes since the 9th inst., I will forward by next mail, and they will probably arrive in London nearly as soon as this letter. The principal matters of interest, however, I will place before the board in this letter, which will be an abstract of my documents to Mr. Brandon. I beg to direct the board's attention, first of all, to the great improvement which has taken place in the prospects of the mine, and but for untoward events, beyond my control, I should have had the pleasure ere this of stating that our actual position was one of profit. Hitherto our supply has been obtained, save the small quantities from Bull's and Thomas's lodes, entirely from the stopes, shown in the accompanying section and plan of the deep workings. These stopes are too limited to do justice to the productive capacity of the lodes, but we are extending our working surface as rapidly as possible, and anyone who will give proper attention to the subject, who fixes his mind upon the numerous points of the mine at great distances from each other, at which very rich ores are found, must come to the conclusion that the mine is a valuable property, and is capable of making large returns and profits. But, unfortunately, I have been prevented from availing of the full produce which the mine has yielded during the last four months by causes of which the board is aware, but which I will briefly enumerate.—1. Breakage of chain in driving, which, besides the delay caused in drawing, takes away from the productive stations of the mine the hands who should be timbering, and keeping the ground in working order; thus less ore is broken in consequence.—2. Want of safety-fuse caused loss of labour.—3. Want of wet stamping-power, whereby instead of getting rid of our poor ores at once we are obliged to heap them at considerable cost, against which we get no present returns. This want has deprived us of 60 to 80 tons of ore, worth $150 per ton, during the past four months, and had not the shoot been destroyed we should have had an accumulated stock of ore to commence upon on Sept. 1 last, but instead we have been depending wholly upon the daily hauling from the shaft. Had we had no interruptions we should have drawn at least 3000 skips of ore. We have now two jobs in hand, which, when finished, will place us in as favourable a position as the existing works will permit, for eight wet stamps will not treat all our ore—the new wheel to wet stamps, and wire-rope to whim. These jobs will be finished within the next few days, and we shall most assuredly enter upon a period of regular profit.—Marmato Mines for the month of December: Cost, $9971; returns, $11,474.—Aquas Claras for December: Profit, $1160.

UNITED MEXICAN.—Guanaxuato, Jan. 20: Mine of Jesus Maria y Jose: In this mine our work goes on much as usual, with no new feature to comment upon. The remittance of ore to the haciendas has kept up to about 740 to 750 cargas weekly, and the buscon sales for the four weeks ending Jan. 14, amounted to $6067. The planes (deepest workings) continue in poor ore, which does not improve as we advance upon it. The accounts for December show a small profit of $705, which brings us out on the quarter with a profit of $1119, less $248 payable to the owners.—Mines in the Guadalupe de la Oscura district: In this district I am sorry to say I have nothing good to report. The ore in the deepest workings of "El Oro" continues good, but most of the few workmen that we counted upon have been called away by the excitement regarding the mine of "El Nopal", in a neighbouring district. This week, however, I hope to get a little more ore out, and in the meantime I have stopped all speculative outlay in the mines. The small torta from Duran gave a very pretty result, and produced, free of duties, $3891; this has enabled us to show in the month of December a profit on this district of $1689.—New Mines—San Cayetano: The adit advanced in December 5 varas. There is nothing new to advise you of in it.—Buenos Ayres: The shaft was delivered over to destajeros (contractors) on Jan. 4, and in the week they sunk 3½ metres. On the 13th, however, we were forced to stop work again to put in more timberwork below that originally done, because the rock was not sufficiently solid to stand the blasting in the bottom of the pit, and our workmen's lives were exposed.—San Antonio de la Ovejera: In this mine the malacite (horse whim) will be finished this week, and we shall get the continuation of the pit commenced in about a fortnight's time. The mouth of the pit is being timbered, and as the water in it is from the shaft itself and not from the mine I think that a few days work will drain it. The second I had denounced under the name of San Benito has been awarded to us by the Mining Tribunal, and must be taken possession of in two months time.

CAPULA.—Capt. Paull, Jan. 26: The Mine: I mentioned in my last that we had suspended the cross-cut north from bottom of shaft, and resumed the sinking of the shaft. Having no more 7-in. pumps I had to purchase a matching-piece, 4 ft. long, 11 in. one end and 7 in. the other; we had to bore out the small part for the bucket to pass. We shall now put on the 11-in. pumps, and sink to the depth of 30 varas below adit, where we shall fix a 10-in. lift, open plot, and drive a cross-cut north to intersect the main lode, and extend levels east and west on it, which will, no doubt, drain the Esperanza level and winzes. I expect at that depth it will pay to drive levels on some of the other lodes, especially San José and San Ignacio. All the stuff from the bottom cross-cut contains small veins of good quality ore that could not be seen underground, on account of so much water, leaving a red soapy mud—iron pyrites; from the south wall of the shaft to the end of the cross-cut north it is all lode, 20 ft.; the end at present is filled with vughs, with small veins of ore. In San Enrique cross-cut there appears to be a cross-branch of gossan, intermixed with spots of fine ore; it has a slight underlie east; we can see the wall for about 4 ft. to the west, there is a soft, white porphyry, different from any I have yet seen at Capula, and we shall be able to see more of it by the end of the week. In the cross-cut south from the Esperanza end we have met with a wall, but whether it is the south wall of the lode or not we cannot say; we shall also be able to prove it this week, and we have been driving through very pretty quarts for the last vara and a half. Last week we broke 12 bags of good quality ore from a branch in the south side of the Esperanza level; a little to the east of the present cross-cut the ore did not reach to the back of the level, but about a vara from the bottom it is now from 4 to 5 in. wide. I mentioned about it in my letter of July 27 last. I think it is the top of another bunch, the same as we had in La Bomba shaft.

LAGUNA.—J. R. Rule, Jan. 28: There is nothing new to report in the sinking of the shaft for the past fortnight; it is now nearly 92½ varas from surface, and stones of ore, as before mentioned, are found in the sinking. The most important work of discovery will be the driving of the new level east, at 100 varas depth in the shaft.

RHENISH CONSOLS.—George Sweet, Wiehl, Feb, 25: Christiana: The end driving east in the 20 lachter level is poor, but we hope it will not be of a long continuance. The western drivage, in this level, we have suspended, and put the men to cross-cut to the hanging-wall of the lode. The stope in the roof of the 20 lachter level, and east of Pittar's winze, will yield 2¼ tons of lead ore per lachter. A stope to the west of this winze will afford 1½ ton per lachter. A stope in the roof of this level, and west of cross-cut, will afford 1 ton of lead ore per lachter. A stope in the roof of the 10 lachter level, and west of Sweet's winze, will afford 1¼ ton of lead ore per lachter. No improvement in the adit driving west. We have sunk in the engine-shaft this month 1 lachter—total depth below the 20, 5 lachters. A winze will be started very shortly in the bottom of the 20, so as to lay open stoping ground by the time the shaft is 10 lachters below this level.—Bliebach: The drivage west, on the middle lode, in the 10 lachter level, will afford 10 centners of lead ore per lachter. A rise in the roof of this level, on the north lode, will afford 12 centners of lead ore per lachter. In cross-cutting south from the western forebreast, on this lode, we have passed through small veins of quartz, with spots of lead ore, and reached the footwall; we have now resumed the driving west. A stope in the roof of the above level, on the middle lode, will afford 1 ton of lead ore per lachter. We have five tribute bargains, working on an average of 3*l.* 7*s.* 6*d.* per ton for clean lead ores. No alteration in the drivage north, on the copper lode, in the adit level. The heavy floods of rain experienced a fortnight since caused the water in the mine to greatly increase, but we have managed to keep it under. Estimated returns for February month—Lead ores 560 centners, 1600 ths.; blende 60 centners, 60 ths.=1660 ths. Total cost on mines, exclusive of block, 1700 ths., leaving a balance of 40 ths. Sinking Astley's shaft, 325 ths.; sundry block, 100 ths. =425 ths.

PESTARENA UNITED.—Thomas Roberts, Feb. 20: The lode in the 46, south from Aquavite engine-shaft, has further improved, yielding now 4 ozs. of gold per fathom; the end of this level is getting very near. The line of the course of ore has gone down in the bottom of the 33; we expect a further improvement here shortly. The 33 fathom level end south is poor at present. The end of the 23, driving south, is much the same as last week, going through ground that we value at 2 ozs. of gold per fathom. The lode in the end driving north from the bottom of the winze, behind this end, yields 7 ozs. of gold per fathom. The lode in the end of the 70, driving north from the Peschiera, yields 2 ozs. per fathom. All the stopes throughout the mines are without any important change. —On Surface: We have 77 small mills working at Pestarena, but we expect an increase of water shortly. We have nearly completed bringing a good lot of timber for general use in the mines. It commenced snowing yesterday, and continues to do so, which will make against the carriage of ore from Pestarena to Battiglo. No change to notice at Val Toppa.

WEST CANADA.—F. Williams, Feb. 1: Huron Copper Bay: The stope below the 20 fm. level, east of Stephens's winze, is improving again, and will now yield 2 tons of good ore per fathom. The stope in bottom of the 20, west of Palmer's shaft, is worth from 2½ to 3 tons. The stope below the 20, east of this shaft, is worth 3½ tons. The stope below the 35, east of ditto, will yield 2 tons. The stopes in the bottom of the 20, east and west of Powell's winze, on the fire lode, are looking well, and at the present time will yield 2¼ tons per fathom. The lode in the 60, west of Bray's engine-shaft, has not improved since last reported on. The lode in the winze at Palmer's shaft, sinking below the 50, is still poor. We hope to have this winze down to the 60 in about two weeks from this date. The men will then commence to drive east to meet the other party. The stope in back of the 35, east of Bray's engine-shaft, will yield 2¼ tons. The winze sinking below the 35, east of this shaft, still continues to look well, and will yield good 2½ tons of ore per fathom. The 50, driving east of this shaft, is still turning out well, and will yield over 2 tons. We are of opinion that the ground between this level and the 35 will prove of great value to us.—Wellington Mine: The stope below the 24, east of Mitchell's shaft, continues much the same, and is worth 2 tons per fathom. The stope in bottom of the 36 is worth 2 tons. The 24, driving east of this shaft, is improving as we proceed, and will yield at this time 1½ ton of ore per fathom. The lode in Mitchell's shaft has not improved since last reported on. The stope east of Rowe's shaft is worth over 2 tons of ore per fathom. This stope will improve as we proceed eastward. The stope west of this shaft will give 2¼ tons. The stope in the back, west of ditto, is worth 1¾ ton of ore per fm. Our dressing and everything connected with the mine are going on well.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

WEST FRANCES.—This is, undoubtedly, one of the prizes of 1869 The mine is opening out well, returning about 50 tons of tin per quarter, with a limited stamping power. The profit on the three months' working ending January was sufficient to pay a dividend of 20*s.* per share, but was ordered to be expended in the erection of additional stamps, more tin being discovered than could be returned with the present machinery. The highest price received during last quarter was 63*l.* 12*l.* 6*d.* per ton, and at this price a profit of 500*l.* was made, equal to a 20*s.* dividend (512 shares). Since which tin has advanced 4*l.* and 10*l.* per ton, quite enough to pay another 20*s.* dividend on the same quantity, But after the current quarter a considerable increase in the quantity must take place, and should the present price of tin continue, of which there is every probability, it is not too much to expect quarterly dividends of 2*l.* 10*s.* or 3*l.* The present market value of the mine (50*l.* per share) is only a little over 25,000*l.*, while Great Vor is selling at nearly 90,000*l.*

WHEAL UNY returns nearly 80 tons of tin per quarter, leaving a profit on last quarter's working of about 800*l.* The lode in the shaft below the 140 is worth 30*l.* per fathom, having improved in quality in the last 6 ft. sunk. The continued advances in the price of tin very materially affect the profits in this mine. The highest price realised last quarter (ending Dec. 31, 1868) was 62*l.* 10*s.* per ton, while the price now is nearly 80*l.*

DRAKE WALLS MINE may now be considered in a sound financial state, the call at the last meeting being enough to pay off all liabilities, and sufficient tin being now returned to leave a monthly profit. The agent reported at the meeting in January that a profit of 200*l.* per month may be expected; since that meeting tin has advanced 14*l.* per ton, which ought to give an additional profit of 150*l.*

WEST DRAKE WALLS.—Since the meeting in January the north lode has been intersected in the 40, from which they have broken some good stones of copper ore. The lode at this point has a very promising appearance. It should be borne in mind that this is about the depth at which the lode in Prince of Wales first became productive—a point of great interest at West Drake Walls.

PROVIDENCE MINES were consolidated in 1832, and worked till 1848 before a dividend was declared. The original outlay was 10*l.* 6*s.* 7*d.* per share, or 11,569*l.* 8*s.* They have since paid 86*l.* 12*s.* 6*d.* per share in dividends, amounting to 97,020*l.*, having continued to pay dividends during the most severe depression, even when tin was 40*l.* per ton; it has now advanced to nearly double that price (between 70*l.* and 80*l.* per ton). The quarterly returns from Providence Mines is about 90 *tons*. The rise in tin since the last meeting, in December, is sufficient to give more than 1000*l. extra profit*. The next quarterly meeting is on the last Wednesday in this month, when a handsome dividend may be expected.

STRAY PARK.—The advance in the price of tin will have a most beneficial effect on progressive mines, and probably no mine is more favourably situated, so as to take advantage of the present prices, than Stray Park. Vast quantities of tinstuff have been laid open during the last four or five years, and this has been held in reserve, in anticipation of better prices. The mine, which was flooded with water by the choaking of Pendarves adit some time since, is now being forked, and operations will be actively carried out on lodes which, at the time of the flooding showed decided improvement. The shares, which are now 6*l.* to 7*l.*, were at ten times this price when tin was up, some few years ago; and, looking at the fact that the lodes are the same which are being worked so profitably in Dolcoath, that thousands of tons of tinstuff have been opened up, and that the mine is now at the depth at which its neighbour, Dolcoath, developed riches, the holders of Stray Park may reasonably hope to see their shares at the old figure, and their mine taking a high place among the prizes of 1869.

CHIVERTON MOOR.—Having recently inspected this mine, I was agreeably surprised to find that the lode at the 85 fm. level west has a splendid appearance, and likely to yield large quantities of lead. The next important point is the two lodes at Clogg's shaft; if they are found to be productive you have a valuable mine at once. My opinion is that you will have large bunches of lead, as I believe your north lodes are the West Chiverton lodes, accompanied with the same elvan course that made the rich bunches in the latter mine; however, be this as it may, it will soon be proved by the cutting of the lodes in the 40 fm. level cross-cuts. They are in a beautiful channel of ground, and I should say cannot fail making a valuable mine.

KELLY BRAY.—There has been a valuable discovery here; indeed, one that raises the highest expectations as to a most lucrative result.

WEST VAN is being worked by a highly respectable company: it is near Llanidloes, about 2½ miles west of the celebrated Van Mine, now of great reputation, and properly so from the extraordinary riches discovered, verified by the monthly sales, together with the large and continuous dividends being paid to the shareholders. The Van lode is a vein of extraordinary size and richness, varying from 8 to 10 fms. in width, taking its regular east and west course, and has proved prolific in ore wherever it has been opened upon, as evidenced in the Van, Penslyn, Brytail, Aberdannant, and the West Van, which has already given 250*l.* profit from very limited workings. This gratifying fact will induce the fortunate proprietors to prosecute the mine with vigour, especially as the junction of the lodes of the district are proved to exist in this property, which may be seen by reference to the Ordnance Coloured Map, sheet 60.

TO THE SHAREHOLDERS IN TAMAR VALLEY MINE.

GENTLEMEN,—Having just returned from a visit to and a thorough inspection of the Tamar Valley Silver Lead Mine, I beg to hand you a copy of my report; The engine-shaft is sunk to a depth of 67 fathoms from surface, cased and divided to bottom, and furnished with excellent ladder way and landing stages. A large extent of ground is opened up. The adit level is cleared north and south of the shaft 200 fathoms. The 27 fathom level is cleared 180 fathoms; the 37, 180 fathoms; the 47, 80 fathoms; the 57, 70 fathoms; the 67, 12 fathoms. There are 26 tributers at work in the four upper levels, raising silver-lead and fluor-spar at the very low tribute of 6*s.* 8*d.* in 1*l.*; this fact speaks well indeed for the future of the mine. The fine specimens of silver-lead (which I took myself from the tributers' pile), and which can be seen at the company's office, will satisfy any one capable of judging as to the promising character of the lode, and probably no better specimens of silver-lead and fluor-spar can be found in any mine in Great Britain. One of the most interesting points of the operations at the mine is the cross-cut at the 67 east; this work is being vigorously pushed on to intersect the eastern or Tamar Valley lode, and is driven through highly mineralised strata; this cross-cut will intersect the above-named lode at a depth of 80 fathoms, the point at which the once famous Tamar Mine commenced to yield large quantities of mineral; the cross-cut is now on about 7 fathoms from the bottom of the main shaft, and the agent calculates to intersect the lode at about 8 fms. further driving. From the promising character of the eastern lode, as seen in the shallow workings, there is little doubt but that it will prove a rich one. In the end of the 67 fathom south, there is a fine lode, which is yielding rich stones of silver-lead, and from present appearances a large deposit of ore is close at hand. The mine is completely supplied with steam pumping engine, drawing machine, and all the necessary buildings, account houses, smith's shops, &c.; the dressing-floors for preparing the ore for the market are nearly complete. There is one feature of great importance in connection with this mine—that is, the large quantity of fluor-spar which can be raised and prepared for sale at a price which will leave a large profit. The mine being situated on the banks of the River Tamar, and having a quay on which vessels of 200 tons can ship ores or discharge materials, is of considerable advantage; and, taking all things into consideration, I have no hesitation in stating as my firm opinion that you are in possession of a most valuable property.

Pinner's Hall, Old Broad-street, March 5. MATTHEW GREENE, Sec.

P.S.—The agent, Capt. Goldsworthy, informed me that he should soon have a good parcel of mineral ready for sale.

GEOLOGICAL SOCIETY OF LONDON.—Feb. 24: Prof. T. H. Huxley, LL.D., F.R.S. (President), in the chair. H. Cook, M.D., H.M. Bombay Medical Service; Lieut. W. Innes, R.E.; H. R. Molser, Heworth Grange, York; R. Hill Tiddeman, B.A., Oriel College, Oxford; and Samuel Allport, Snow Hill, Birmingham, were elected Fellows. The following communication was read:—

"On the British Postglacial Mammalia," by W. Boyd Dawkins, M.A., F.R.S.

On Wednesday, the following papers will be read:—1. "On the Origin of the Northampton Sands," by J. W. Judd, F.G.S.—2. "On the Cretaceous Strata of England, France, and Algeria," by M. H. Coquand: communicated by J. W. Flower, F.G.S.

INSTITUTION OF CIVIL ENGINEERS.—At the meeting, on Tuesday (Mr. Charles Hutton Gregory, President, in the chair), twelve candidates were duly elected, including four *Members*—M.. William John Forrest, Westminster; Mr. John Johnson, Ferryhill, Durham; Mr. Henry Nathan Maynard, Westminster; and Mr. Edward Baliol Scott, Consulting Engineer in the Province of Kattywar, Bombay Presidency; and eight *Associates*—Mr. Clement Barnard, Billiter-square; Mr. John Hopwood Blake, Assistant Geologist on H. M. Geological Survey of England and Wales; Mr. Harry Chubb, Bedford-row; Mr. Arthur Douglas Fox, Assistant Engineer. D. P. W., Tanjore; Mr. Robert Andrew Robertson, Clyde Wharf, Victoria Docks; Major John Heron Maxwell Shaw Stewart, R.E., Government Consulting Engineer for Railways, Madras Presidency; Capt. Edward Talbot Thackeray, V.C., R.E., Executive Engineer, D.P.W., Meerut; and Mr. Frank Turner, Contractors' Staff, Honduras Railway. It was also announced that the Council, acting under the provisions of section 4 of the bye-laws, had recently admitted the following candidates *Students* of the Institution—Messrs. John George Barton, Herbert Maude Bell, Hugh Whinney Dallas, Thomas Inman, Samuel Moyle, and Henry Oliver Smith.

SOCIETY OF ENGINEERS.—At the meeting, on Monday (Mr. F. W. Bryant, President, in the chair), a paper was read, "On Electric Telegraphy, irrespective of Telegraphic Apparatus," by Mr. E. G. Bartholomew. The following candidates were duly elected as *Members*—Messrs. Wm. Hartley, Locomotive Superintendent, L. C. and D. Railway, Longhedge; John Baldwin, Engineer, Navarino-road, Dalston; John Blackbourn, Resident Engineer, Navarino-road, Dalston; and as *Associate*—Mr. James William Restler, New Water Works, Hampton.

IRON AND STEEL INSTITUTE.—A general meeting of the Institute was held at the Westminster Palace Hotel, on Feb. 25, when the voting papers for first committee and officers were received. The results of the scrutiny will be announced shortly. A considerable number of additional names were received as candidates for membership. Altogether, about 200 members have now been enrolled. We understand that papers of much interest have already been promised by several gentlemen connected with the movement. The rules have now been finally adopted, and the council are in a position to receive applications for membership. The conditions of membership are, broadly, a practical connection with some department of the iron and steel manufactures, or with works in which the manipulation or application of iron or steel is extensively carried on. The subscription is two guineas per annum. Up to the end of the present year no entrance fee will be charged, after that time an entrance fee of two guineas will have to be paid. The secretary is Mr. Jno Jones, Iron Trade Offices, Middlesborough, and the treasurer is Mr. David Dale, Darlington.—*The Iron and Coal Trades Review.*

FOR SALE,—THE UNDERMENTIONED ENGINES AND WATER WHEELS:—

ONE 60 in. cylinder ENGINE, 10 ft. stroke in cylinder, and 9 ft. in shaft; with TWO Cornish BOILERS, 10 tons each.

ONE 56 in. cylinder PUMPING ENGINE, 9½ ft. stroke, equal beam; with TWO Cornish BOILERS.

ONE 50 in. cylinder PUMPING ENGINE; with ONE BOILER.

ONE 33 in. cylinder (beam) double-acting ENGINE, with pumping gear attached, 6 ft. stroke; with ONE 10 ton BOILER.

ONE 30 in. cylinder (beam) double-acting ENGINE, with pumping gear attached, 9 ft. stroke; with ONE 10 ton BOILER.

ONE 25 in. cylinder (beam) double-acting ENGINE, 6 ft. stroke; with ONE 10 ton BOILER.

ONE 12 in. cylinder rotary STEAM ENGINE, with ONE 6 ton BOILER.

The whole of the above engines are in excellent condition, some being nearly new.

WATER WHEELS.

ONE	WATER WHEEL,	40 ft.	diameter, and	8 ft. abreast.
ONE	ditto	60 ft.	ditto	3½ ft. abreast.
ONE	ditto	30 ft.	ditto	3½ ft. abreast.
ONE	ditto	35 ft.	ditto	3 ft. 2 in. abreast.

The above wheels have cast-iron rings, sockets, and axles.

Also, several Cornish CRUSHERS, of various sizes.

For further information respecting the above machinery, apply to W. MATHEWS, Engineer, Tavistock.

Tavistock, Feb. 25, 1869.

FOR SALE, cheap, a 16-horse power PORTABLE STEAM ENGINE, new, and with all recent improvements, guaranteed.

FIRST-CLASS PORTABLES, 5 to 25-horse power, on advantageous terms. Prize Medals awarded—Hamburg, 1863; Paris, 1867, &c.

FOR SALE, EIGHT very superior SECONDHAND PORTABLE STEAM ENGINES 5 to 10-horse power, by eminent makers, in excellent condition.

BARROWS AND STEWART, ENGINEERS, BANBURY.

THE ALMADA SILVER MINING COMPANY

(LIMITED).

Registered under the Comanies Acts, 1862 and 1867.

Capital £75,000, in 7500 shares of £10 each

(Of which 4000 shares are agreed to be taken, including the shares to be transferred to the vendors in part payment, and 3500 are offered to the public.)

Deposit on application, £1 per share. Payment on allotment, £1 10*s.* per share.

The remaining instalments will be payable as follows:—

On the 20th day of May, 1869 ..... £2 10 0

On the 20th day of August, 1869 ..... 2 10 0

On the 20th day of January, 1870 ..... 2 10 0

But shareholders to be at liberty to pay up in full, and receive 5 per cent. interest on calls paid in advance, in which case share warrants to bearer will be issued.

The vendors to the company have agreed to forego all profit for the sale of their contract entered into with the owners in Mexico (subject to the payment of the original purchase-monies and exploration expenses, amounting to £43,000, payable as follows, viz.:—£20,000 in 2000 fully paid-up shares of the company, and £23,000 by instalments), until the shareholders have received back their entire subscriptions in full, and 5 per cent. per annum interest thereon, after which the profits are to be equally divided between the shareholders and such vendors, when fully paid-up shares will be issued to represent the vendors' moiety of the property.

The deposits will be returned unless two-thirds of the capital, exclusive of the vendors' shares, be applied for and allotted.

DIRECTORS.

GEORGE CURNOW HOCKIN, Esq., Director of Anglo-Mexican Mint Company.
ROBERT WALLEN JONES, Esq., 7, Ormonde-terrace, Regent's-park.
WILLIAM JULIUS MARSHALL, Esq., Auditor of the London Bank of Mexico and South America.
WALTER SHAIRP, Esq., 25, Sussex-gardens, Hyde-park.
(With power to add to their number.)

BANKERS—THE NATIONAL PROVINCIAL BANK OF ENGLAND.
BROKERS—Messrs. IRVING and SLADE, 1, Copthall-court, E.C.
CONSULTING ENGINEER—JOHN PETHERICK, Esq., F.G.S., M.E.
SOLICITOR—J. A. MORGAN, Esq., 1, Winchester-buildings, E.C.
SECRETARY—H. G. DENNIS, Esq.
OFFICES,—1, WINCHESTER BUILDINGS, E.C.

This company is formed for purchasing and working the celebrated Almada Mines, situated in the important mining district of Alamos, in the State of Sonora, one of the richest districts for silver in Mexico, about 70 miles from the sea port town of Ajiavampo, on the Pacific Coast.

The property consists of the mines "Compania, Mina Grande, and Providencia," all on the same lode, and 20,000 acres of grazing and arable land, timber for fuel, a reduction yard, and a very substantial residence and store-house.

This property was recommended for purchase by Mr. John Petherick, F.G.S., and Mr. J. P. Clemes, M.E., the well-known mining engineers, after personally inspecting it, as possessing more commercial advantages than any other of the numerous mines they had carefully examined in this and the neighbouring districts.

The conclusions arrived at by Messrs. Petherick and Clemes have been confirmed by subsequent workings of these and the adjoining mines. The lode, which exists in the bottom levels of the Mina Grande, has been cut in the adjoining mine, about 70 yards from the boundary of the Providencia Mine, and is reported, on reliable authority, to be of the width of 40 ft., which is about the same as that of the Mina Grande lode.

It is estimated that the annual profit from working the Providencia and Mina Grande Mines, after development, from a yield of 5000 tons of ore, will be from 20 to 25 per cent. on the capital of the company, and it is probable that larger returns may be realised within a reasonable period after the opening of the mines. The reported reduction of duties by the Mexican Government on silver, since the date of the original report, will materially improve the estimated profits of these mines.

These estimated profits are based on the small quantity of 5000 tons of ore per annum, from a lode 40 feet wide. But from such a lode the production of 40 tons per diem, or 12,000 tons per annum, would be only a moderate return, and it is therefore fair to assume that the profits may be considerably in excess of the above estimates.

There is a good wagon road all the way from the foot of the mines to the coast.

The neighbourhood is populous, fertile, and very healthy.

Ordinary mining labour is abundant at about 2*s.* per day.

Mr. Petherick's reports, and subsequent verifications and letters, form of memorandum and Articles of Association, and above-named original agreements may be seen on application at the offices of the company.

Full prospectuses and forms of application may be obtained at the offices of the company, of the brokers, and of the bankers.

THE ALMADA SILVER MINING COMPANY

(LIMITED).

Registered under the Comanies Acts, 1862 and 1867.

Capital £75,000, in 7500 shares of £10 each.

Deposit on application, £1 per share; payment on allotment, £1 10*s.* per share.

Notice is hereby given that the LISTS of APPLICATIONS for SHARES will CLOSE on TUESDAY next, 9th instant. H. G. DENNISS, Secretary.

Office, 1, Winchester-buildings, E.C., 4th March, 1869.

ABRIDGED PROSPECTUS.

The Dolwen Company, Limited.

CAPITAL £5000, IN 5000 SHARES OF £1 EACH.

DEPOSIT 10s. PER SHARE.

DIRECTORS.

MR. ALEXANDER BRIDGE, 7, Argyll-place, Regent-street, W.
MR. J. B. BALCOMBE, Aberystwith (Managing Director Bronfloyd Company).
MR. CHARLES FAUNTLEROY, Russell-street, Bermondsey.
MR. JAMES RHODES, Hanover-street, Islington, N.

BANKERS—THE NATIONAL PROVINCIAL BANK OF ENGLAND, ABERYSTWITH.
BROKER—MR. EDWARD BALCOMBE, 47, Threadneedle-street and Stock Exchange.
AGENT—CAPTAIN JOHN DAVIS, Manager, Llywernog Mine.
SECRETARY—MR. HENRY FERGUSON.

OFFICES,—QUEEN'S ROAD, ABERYSTWITH.

This company was incorporated March, 1867, in 1000 shares of £5 each, with the object of purchasing a lease for 21 years from October, 1866, arranged to be granted by the Hon. J. Kenneth Howard, Chief Commissioner of Her Majesty's Woods, &c., of the mines and minerals contained within and under 79¾ acres of land known as Bodcoil and Dolwen, and to work the said mines. Owing to the then pending commercial crisis only 421 shares were subscribed for; however, the proprietors, acting under the best obtainable advice, determined to take up the lease, and to carry out further exploratory trials in order to test the south lode. The work that has been so done will be best evidenced by the joint report appended to the prospectus of the agents of the Llywernog and of the celebrated Bronfloyd Mines.

The property is situated about 14 miles east of Aberystwith, 2 miles from Devil's Bridge, and about 1½ from Cwmystwith. It contains two masterly lead lodes; the south one being, according to repeated diallings, the same lode as the celebrated Frongoch of the Lisburne Mines Company, under the management of Messrs. John Taylor and Sons, which, upon a capital of £7500 (400 shares, £18 15s. paid), have yielded and returned £510 per share—total dividends, £204,000.

Its position will be further explained by the reports of Mr. J. H. Hitchins, consulting engineer to the Devon Great Consols Mines, and by Mr. Matthew Francis, C.E., formerly chief agent of the Frongoch Mine.

The directors were advised that Dolwen was one of the most promising pieces of unexplored mineral ground in the Principality, the development of which had been hindered by the questionable title of the Crown lessee; however, as in the interim the difficulties affecting the old lease were overcome by a new grant at one-fourteenth royalty direct from the Crown, they put in hand the exploratory trials recommended, and the result abundantly proves the soundness of Messrs. Hitchins and Francis' advice. These operations have been solely confined to the Dolwen or eastern portion of the property, and it is a significant fact that Messrs. John Taylor and Sons have recently purchased from this company the western ground, and formed a separate company to work the same.

In order to extend the basis of the present company, special resolutions have been passed to subdivide the 1000 shares of £5 each into 5000 shares of £1 each, without further liability—2000 of these shares will represent the outlay of the company to the present time, and the remaining 3000 shares will form the future working capital. Of the 3000 shares, 755 have been privately subscribed for, and the directors may add that as most of the speculative character attending the opening of a mine is in this case at an end, they offer to public acceptance the remaining shares (reduced to a minimum liability), believing that the economical application of the capital so to be raised will, with steady perseverance, develope a fine property.

Prospectuses, containing the full reports of the consulting engineers and mining agents above referred to, may be had on application to MR. EDWARD BALCOMBE, Sworn Broker, 47, Threadneedle-street, and Stock Exchange, London, or at the offices of the company.

NOTE.—The SHARE LIST will be CLOSED on MONDAY, March 8.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by MR. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, MR. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

"W. A.," "A Shareholder," and other Correspondents, in reference to the Van Mine, will find Mr. Watson's report in another column; and any information not given in that report—and there is, of course, much in reference to collateral circumstances that he could not publish—will be furnished to anyone applying for it, and specifying the particular information required, privately. The report itself very nearly answers our *present* correspondents. It was Mr. Watson's original intention to have visited Plynlimmon and several other mines in the neighbourhood, and to have sent up to the Journal a series of "Welsh Notes," similar to those published on previous occasions in reference to Cornwall; but the weather on his arrival in Wales was such as to render travelling among the mountains troublesome, and the notes upon the other mines have, therefore, been deferred for a few weeks.

SATURDAY.—Great demand for tin mines. Great Wheal Vor, 14½ to 15; Tincroft, 17½ to 18½; West Frances, 47½ to 50; Providence Mines, 37 to 39; Drake Walls, 19s. to 21s.; New Lovell, 3 to 3½; West Chiverton, 52 to 53; Prince of Wales, 24s. to 26s.; Chontales, 22s. 6d. to 27s. 6d.; Chiverton Moor, 1¼ to 4¾; Marke Valley, 8¾ to 9; Wheal Basset, 69 to 71; Wheal Chiverton, 3¼ to 3½; Wheal Grenville, 42s. to 44s.; East Grenville, 3¾ to 4.

MONDAY.—Active demand for Grenvilles, at 43s. to 45s.; West Frances, 47½ to 50; Drake Walls, 20s. to 22s. 6d.; West Drake Walls, 6s. to 8s.; Rosewall Hill, 20s. to 22s. 6d.; Chontales, 22s. 6d. to 25s.; West Seton, 195 to 200; Tincroft, 18 to 19; New Lovell, 3 to 3¼; Providence Mines, 38 to 40, all at an advance; Prince of Wales, 24s. to 26s.; Great Retallack, 2¼ to 2½; East Grenville, 3¾ to 4; West Chiverton, 51 to 53; South Condurrow, 22s. 6d. to 25s.

TUESDAY.—Great demand to-day for Grenville, East Grenville, West Frances, Drake Walls, Prince of Wales, Crebor, Great Wheal Vor, Basset, and West Chiverton, at advanced prices. Grenville, 46s. to 48s.; East Grenville, 4 to 4¼; West Frances, 47½ to 52½; Drake Walls, 20s. to 25s.; Prince of Wales, 24s. to 26s.; Crebor, 10s. to 15s.; Great Wheal Vor, 15½ to 16½; Basset, 70 to 75; West Chiverton, 51 to 53; New Lovell, 3 to 3¼; Providence Mines, 38 to 40; Tincroft, 18½ to 19½; Chiverton, 3⅜ to 3⅝; Uny, 4 to 4¼; Great Retallack, 2¼ to 2½; Chiverton Moor, 4⅛ to 4⅜; Chontales, 22s. 6d. to 27s. 6d.

WEDNESDAY.—The demand for shares in tin mines continues, and dealers have great difficulty in getting stock. West Frances, Tincroft, Grenville, East Grenville, Uny, Providence Mines, Drake Walls, and Great Wheal Vor in active demand, at an advance. West Frances, 50 to 55; Tincroft, 19 to 20; Grenville, 46s. to 48s.; East Grenville, 4⅛ to 4⅜; Uny, 4 to 4½; Providence, 38 to 40; Drake Walls, 20s. to 25s.; Great Wheal Vor, 16 to 17; Chiverton Moor, 4½ to 5; New Lovell, 3 to 3¼; Great North Laxey, 28s. to 30s.; Crebor, 11s. to 13s.; Prince of Wales, 24s. to 26s.; Seton, 70 to 75; Basset, 70 to 72½; Chontales, 22s. 6d. to 25s.

THURSDAY.—Market again active for Grenville, East Grenville, Uny, West Seton, Crebor, Basset, Drake Walls, Buller, East Caradon, Stray Park, and Chiverton Moor. Grenville, 46s. 6d. to 48s. 6d.; East Grenville, 4⅛ to 4⅜; Uny, 4 to 4¼; West Seton, 195 to 205; Crebor, 10s. to 12s. 6d.; Basset, 70 to 75; Drake Walls, 20s. to 22s. 6d.; Buller, 10 to 12; East Caradon, 8½ to 9; Stray Park, 6 to 8; Chiverton, 4¾ to 5; West Drake Walls, 7s. to 9s.; Great Wheal Vor, 15 to 16; Great North Laxey, 29s. to 31s.; Prince of Wales, 24s. to 26s.; Cook's Kitchen, 14 to 15; West Chiverton, 51 to 52; West Frances, 50 to 52½; Chontales, 22s. 6d. to 25s.; Don Pedro, 4⅜ to 4⅝.

FRIDAY.—There is still an active enquiry for shares in tin mines, and prices about the same as yesterday. New Lovell, 3 to 3⅛; Drake Walls, 20s. to 22s. 6d.; Uny, 4¼ to 4⅛; West Frances, 49 to 51; Tincroft, 18½ to 19½; Prince of Wales, 22s. 6d. to 25s.; East Grenville, 4¼ to 4½; Wheal Grenville, 47s. to 49s.; Buller, 10 to 12½; Stray Park, 7 to 9; Frontino, 11s. 6d. to 13s.; Don Pedro, 4½ to 4¾.

Halcomb and Co. Sack Contractors (Limited) have sent out the warrants for interim dividend, at the rate of 12 per cent. per annum, free of income tax.

HOLLOWAY'S OINTMENT AND PILLS—UNIFORM SUCCESS.—It is highly consolatory to reflect upon the important inventions for the relief of suffering humanity which have conferred nobility on the nineteenth century. These remedies stand unrivalled for the cure of gout, rheumatism, lumbago, tic doloreaux, and every other variety of neuralgic pain. The painful places have only to be bathed in tepid salt and water, and well rubbed with Holloway's ointment, to convince the most sceptical of the curative power it exercises over these diseases; the most desperate cases, whether chronic or acute, best exemplify the striking success which follows the proper use of this soothing ointment and these purifying pills. Both medicaments are composed of the most innocuous and healing balsams.

Mining Correspondence.

BRITISH MINES.

BRONFLOYD.—T. Kemp, March 3: Settings for March: New-Shaft—North Lode: Six men to drive the 73, west of cross-cut, on the south part of the lode, at 7*l.* per fathom; lode greatly improved, and is now producing some very rich ore. According to the dialling, this end is now about under the point where we had the rich ore in the bottom of the 62. Six men to open on and stope the lode west of the cross-cut, in the 62, at 7*s.* per fathom; the lode continues to yield 3 tons of lead ore per cubic fathom. Eight men to stope down the south side of the lode, under the 52, worth 1½ ton per cubic fathom. Four men to stope this lode in the back of the same level, west of winze; lode worth about 1 ton of ore per fathom. Four men to drive the 40 fathom level end west, on the south part of the lode, at 60*s.* per fathom; the lode at the present time is unproductive. Two men to continue the 52 fathom level end, east of Barton's cross-cut, on the north part of the north lode, at 72*s.* 6*d.* per fathom; lode without change.—Old Shaft—South Lode: Two men to open a level west, south of the cross-cut, from the 52, and on that part of the lode, at 8*l.* 10*s.* per fathom—stent 1 fathom; the lode is producing a good mixture of lead ore. Machinery and works in good order.

BWADRAIN CONSOLS.—R. Northey, March 2: The lode in the 35 is a large and strong one, and equal in value as last reported. All the stopes and other places in operation are without any material change; the machinery is working well, and we are pushing on the dressing as fast as possible for next sampling.

BWLCH CONSOLS.—R. Northey, March 3: The lode in the 50 is 4 feet wide, worth 1 ton of lead ore per fathom. The lode in the 60 is improving in character, and I hope to be able to report a good bunch of ore shortly in this level. I have nothing of importance to notice in any other part of the mine. Our dressing is going on as usual.

CAPE CORNWALL.—R. Pryor, T. Gundry, March 3: No particular change has taken place in this mine during the past week. Saturday next being our pay and setting, a full report shall be forwarded you.

CARADON CONSOLS.—S. Bennetts, March 2: The Clymo's lode, in the 78 west, continues about 1 ft. wide, sometimes producing good ore, and then again not so well. The gossan lode is without any material change. The ground, however, is slightly harder around a small spar cross-course just passed through. Another small vein of red oxide of copper has just been cut in the north cross-cut; this I consider is a very favourable indication in reference to the lodes ahead, as nothing of this kind was seen in the 58 cross-cut.

CASHWELL.—John Peart, Feb. 27: The drift going east below Scar limestone continues very hard, but contains rather more ore. No. 1 stope, in Scar limestone east, is still producing very good ore. Another stope in this stratum has been commenced nearer the drift forehead, and as far as worked looks very well. The vein in Slaty Hazle east continues soft and easy to work, and contains very good ore. Four men are at present making a rise into the 5-yard limestone from the Slaty Hazle drift east, and so far as opened out looks very well, much better than expected. At Dauke's the vein in rise contains very nice mineral, but not much ore.

CARDIGANSHIRE LEAD.—E. Pearse, March 4: In the 50 fm. level cross-cut, driving north of the engine-shaft, the ground is hard, and slow for progress, and from present indications I think we are not far from the lode. The stope in back of the 40, west of the engine-shaft, will produce 14 cwts. of lead ore per fathom. The stope above the 30 will yield 10 cwts. of lead ore per fathom. The pitch in the back of of 29 fm. level, on the south lode, will yield 3 tons of blende per fathom.

CASTELL CARN DOCHAN (Gold).—J. Parry, March 3: The lode is fully 5 ft. wide in the forebreast of the deep adit level. There is no alteration in the appearance of the lode stuff. We are carefully testing 25 tons.

CEFN BRWYNO.—J. Paull, March 2: There is no particular change in this mine since last report. The lode in the 92 and 56 fathom levels east continue to produce about the same quantity of lead ore as last stated, and all other points looking much the same. The winze below the 80 east, before alluded to, is commenced, and will be carried down as speedily as possible.

CENTRAL MINERA.—W. Davies, March 4: The cross-cut south of the 50 yard level has been extended to the rock, and is suspended. The cross-cut going north is driven 5 yards; the ground is very congenial for producing lead, and at present yields occasional stones of ore. The level driving on the hanging or the north side of the lode, is in very promising ground, and producing a little lead. The pitch is worth 5 cwts. lead per fathom.

CHANTICLEER.—W. Wasley, March 4: We are making fair progress in driving the 110 yard level, west of the cross lode, and the lode and ground in the present end are looking very favourable for the production of ore.

CHIVERTON MOOR.—George E. Tremayne, Wm. Bennetts, March 3: The engine-shaft is sunk below the 85 about 9 ft.; the ground is a light blue killas, at present favourable for sinking. On Saturday next we purpose setting to a full pare of twelve good shaftmen a bargain to sink this shaft to the 95, it being desirable to reach this point as early as possible to open up the next level. The 85 fm. level end east is driven about 5 fms. from the engine-shaft cross-cut; the lode is 12 in. wide, composed of flookan, quartz, mundic, and a little lead; a very promising lode. The 85 fm. level end west is driven about 15 fms. from the engine-shaft cross-cut; the lode at this point has considerably improved in the last 6 ft. driving; it is at present 4 ft. wide, composed principally of flookan, friable quartz, with mundic and good stones of lead on the south part, with great promise for a speedy improvement. In the 75 fm. level end, west of the engine-shaft cross-cut, the lode is at present unproductive, and in a disordered piece of ground. We have discontinued driving this end for the present, and placed the men to drive south to ascertain whether or not any part of the lode is still standing. Four stopes working in back of this level are worth on an average for lead from 6 to 10 cwts. per fm.; we have a long piece of valuable ground to come away in back of this level. In the 65 fm. level end, east of the cross-cut, the lode over is 4 ft. wide, composed of flookan, capel, quartz, mundic, and a little lead. A winze sinking below the 65, west of the cross-cut, on the north part of the lode, is down 7 fms. 3 ft., and worth 7 cwts. of lead per fathom; the south part of this lode is still standing, and we believe it to be of equal value to the part carried. In the 40 the north cross-cut, at Clogg's shaft, is driven 10 fms., and from the very favourable appearance of the ground in this level we fully expect to meet with a valuable lode. The south cross-cut, in this level, is also driven 10 fms., but has not yet reached the lode; but there is a little increase of water, which indicates its proximity.

CUDDRA.—F. Puckey, A. Cundy, March 3: We are still continuing the driving of the 142 west on the course of the lode, which we find to be exceedingly hard and spare for progress. As we proceed westward the course of tin appears to be dipping towards the bottom of the end, and thereby becoming of increased value; it extends now 5 ft. wide, and 4½ ft. from the back, towards the bottom. We estimate the present value of this end (taking into account the rise in the price of tin on Monday last) to be 150*l.* per fathom. In cutting out the lode to the east of the cross-course, behind the above end, we have not yet reached the tinny part of the lode, it being further north, by reason of the influence of the cross-course, than was expected. The other parts of the mine are without alteration to notice.

CWM DARREN.—R. Clocker, March 4: Good progress has been made in sinking the engine-shaft, where the lode continues its usual size and character. At present the eastern end of the shaft is most productive, and from appearances when the shaft has reached its required depth we shall open out on a rich lode in that direction. The driving of the adit 130 fathoms west of the engine-shaft is going on favourably, the lode is keeping one of the very best directions for making a good body of silver-lead ore, and is now producing some very fine stones; altogether it has a most promising appearance. Our dressing is going on with regularity, and the crusher doing its work well. The machinery is in good repair.

DEEP LEVEL.—March 1: The lode at the deep level, west of junction, on Pant-y-Go vein, is 3 ft. wide, composed of limestone, spar, blende, and producing stones of lead ore; the lode in the present end looks very promising. In the deep level, east of junction, on Pant-y-Go vein, the lode is 12 in. wide, composed of limestone, spar, and blende. The deep level south-west, on Deep Level vein, is in a lode 14 inches wide, composed of limestone and spar, and producing stones of lead ore. The tribute pitch over this level is in a lode 2 ft. wide, worth 14 cwts. of lead ore per fathom. The winze sinking below the 204 yard level is in a lode 2 ft. wide, principally composed of spar, and showing some nice spots of lead ore; this winze is now down 10 yards below the 204; we have put nine men in this bargain this month. We wish to get this winze through to the deep level as quickly as possible, in order to cut open the ground between the 204 and the deep level for taking away on tribute. The lode in the 204, west of Eyton's shaft, on Pant-y-Go vein, is 18 in. wide, composed of limestone and spar, producing stones of lead ore, and looking promising. The two tribute pitches over the 204 are falling off a little in value. We have commenced to drive the 202 yard level east from Pant-y-Go shaft; the lode at this point is hard and poor. In the 202, west of Paut-y-Go shaft, we are putting out a short cross-cut south to see if there is any more lode standing in that direction. The 174 west, on Pant-y-Go vein, is in whole ground again. The old workings referred to in our last report was a sump sunk down from the level above; the lode in the present end is 2 ft. wide, containing spots of lead ore. We hope to get 20 tons of ore for our next sampling.

DEEP LEVEL.—March 4: We have cut into the Pant-y-Go vein, in the cross-cut south, in the 202 yard level, 20 yards west of Pant-y-Go shaft, and as far as we can see, for about 12 inches in width, the vein looks very promising, being composed of spar and a strong mixture of lead ore, and letting out water freely. We cannot ascertain the width of the vein for a few days, but as soon as it is cut through it will be reported. We have driven out our cross-cut south from the old level about 6 feet, where we have intersected the north part of the vein, and from all appearance the lode is standing to the south of the old level for the whole distance the old company drove it—about 42 yards. Should the lode continue to open out productive at this point, it is a most valuable discovery, and will be the making of these mines. The lode in the 204 yard level, west of Eyton's shaft, has also improved, and looking more promising than we have hitherto seen it; the vein is about 18 inches wide, composed of spar, and producing good stones of lead ore.

EAST CARADON—(*Special Report*).—G. Rowe, March 4: I inspected this mine yesterday, and am glad to say that it is still looking well, and I think will continue to do so for some time to come, particularly if they start off a new cross-cut on the same cross-course to cut all the north lodes, which I think are eight or nine in number; and should that part of the mine be found in connection with this cross-course as good as those lodes south (of which there can be no reasonable doubt), then you may expect a good dividend mine for your life, if it is 40 years yet to come, or more. For example, look at the adjoining mine, South Caradon, and see what the cross-courses have done for them. The present position and different points in the mine are as follows:—Caunter Lode: The 115 fm. level east is now about 2 or 3 fms. short of being in and under the run of ore ground coming down through from the upper levels, allowing sufficient for the dip east; but I am inclined to think they are driving upon the wrong part of the lode, as I suggested.—The 100 fm. level, east and west: The ends are pretty nearly driven home to boundary: at the same time, there remains a great quantity of ore ground to be taken away, so high as the 80 fm. level, of which I have already given you some idea on former occasions, and I am still of the same opinion, and quite certain it is correct. But for the moment the principal points are on Child's lode, of which the following is the valuation:—In the 90 west the lode is 4 ft. wide, yielding between 5 and 6 tons of ore per fathom, worth 20*l.* per fathom. In the 90 east the lode is 4½ ft. wide, yielding 6 tons of ore, worth 25*l.* per fathom. In the 80 west the lode is split, yielding 1 ton of ore, worth 5*l.*; this point will very soon improve, now passing through a similar piece of ground as in the level above. The lode in the rise, 6 or 7 fms. behind this end, and about 2 fms. high, is worth over 50*l.* per fathom. The 80 east, on this lode, has been suspended long ago, and a cross-cut south on south lode, or what is called south part of Child's lode. The western drivage on this lode is extended about 5 fms.; the lode in the present end is about 6 ft. wide, coarse, yielding about 3 tons of ore, or 10*l.* per fathom. The east drivage is extended about 8 fathoms, through a good lode, but in the present end it is split, yielding 1 ton of ore, or 4*l.* per fathom. The 70 fm. level east is extended about 18 fms.; the lode in the present end is 3½ ft. wide, yielding 4 tons of ore, worth from 10*l.* to 12*l.* per fathom. The 70 west is looking well, worth from 35*l.* to 40*l.* per fathom. The lode in the stope in the back of the same level, or what is called New lode, is worth 20*l.* per fathom.

EAST DARREN.—March 3: The lode in the 116, east of Taylor's shaft, is 3 ft. wide, looking more promising for lead ore. In the 104 east the lode is 2 yards wide, producing 1¼ ton of ore per fathom. The lode in the 92 east is from 4 to 5 ft. wide, yielding about 2 tons of ore per fathom. The lode in the winze below the 80, west of Reed's shaft, continues to yield fair stones of ore. The lode in the winze sinking under the 80, east of Taylor's shaft, is from 3 to 4 feet wide, yielding 1¼ ton of ore per fathom. The driving of the 68 east is suspended for the present, and the men are put to sink a winze under this level, where the lode is 4 ft. wide, yielding 1¼ ton of ore per fathom. At Skinner's shaft, below the 44 the ground is favourable for sinking. The new shaft at Blaencwm is being sunk as fast as possible; ground favourable. Nothing new in our cross-cuts. Our tribute pitches continue to yield their usual quantity of ore. Our machinery is in good working order, and our dressing, &c., progresses satisfactorily.

EAST ROSEWARNE.—C. Glasson, March 4: The lode in King's shaft, sinking below the 115, is still 12 in. wide, worth 10*l.* per fathom. In the 115, west of shaft, the lode is 15 in. wide, worth 7*l.* per fathom. In the 115, east of shaft, the lode is 15 in. wide, worth 4*l.* per fathom; ground rather hard for driving. In the 105, west of shaft, the lode is 10 in. wide, producing good stones of copper ore, but not enough to value. In the 105, east of shaft, the lode is 12 inches wide, worth 6*l.* per fathom. In the 95, east of shaft, the lode is 10 in. wide, and worth 3*l.* per fathom.

EAST WHEAL BASSET.—W. Nancarrow, March 3: No lode yet cut in the 140 south, therefore the lode has changed its underlie, otherwise we should have cut it before this, as the ground is spent, judging from the level above. No lode has been taken down in the 130, east of new shaft, since last report, then worth 4*l.* per fm. for copper ore. In the 130, east of No. 1 cross-cut, the lode is 2 feet wide, composed of spar and iron, of a kindly appearance, but nothing to value. In the 130, west of No. 2 cross-cut, the lode is 1 foot wide, producing occasional stones of copper ore. A rise in the back of the 130, west of No. 1 cross-cut, is worth for copper ore 20*l.* per fathom. The stope in the back of the 125, west of rise, is worth for copper ore 10*l.* per fathom. I am glad to say that the water throughout the mine is getting less, which we can now keep out with ease.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Feb. 27: Setting Report: The 120 east, by six men, the month, at 7*l.* per fm.; lode 15 in. wide, of quartz, &c., containing good stones of copper ore, and of a most promising appearance. The 110 east, to two men, at 5*l.* per fm.; lode 15 in. wide, with good stones of grey ore. The stope above this level, to two men, at 20*s.* per fm., and 2*s.* 6*d.* in 1*l.*; lode worth from 15*l.* to 20*l.* per fm. The 95 rise, by two men, at 4*l.* per fm.; here we anticipate laying open some good tribute ground. The 85 east, by four men, at 5*l.* per fm.; lode small. The 75 east, by four men, at 4*l.* 10*s.* per fm.; lode 1 ft. wide, and worth 1 ton of ore per fathom; here we believe we shall a great improvement. The 55 east, to four men, at 4*l.* 5*l.* per fm.; lode 2½ ft. wide, very kindly in appearance, and worth 2½ tons of ore per fm. The winze to sink below this level, to four men, at 4*l.* 10*s.* per fm.; lode worth 2½ tons per fathom. The rise above this level, to six men, at 4*l.* 10*s.* per fm.; lode worth fully 3 tons of rich ore per fm.; this is likely to open out a good piece of ground. The ground in the side-tie is getting stiff, and which we think is safer than to keep too close to the run; we have to-day set it to six men, at 6*l.* 10*s.* per fathom, they to work stem-time. We have to-day set the following pitches:—Three men at 11*s.* in 1*l.*; two men at 13*s.* 4*d.*; two men at 12*s.* 6*d.*; four men at 5*s.* 6*d.* in 1*l.*; two men at 11*s.*; four men at 4*s.* 6*d.*; four men at 3*s.* 6*d.*; and two men at 13*s.* 4*d.* in 1*l.*; by which you will at once see that the ground opened out at the 55 is grey.

— G. R. Odgers, W. Bennetts, March 3: There is no change in any place since our setting report of Saturday, as the men have been engaged securing their places. We will send you a full account of every place after being underground to-morrow.

— G. R. Odgers, W. Bennetts, March 4: The lode in the 120 east is 20 in. wide and worth from ⅛ to 1 ton of copper ore per fathom, which has a most promising appearance. In the 110 east there is no change, but the lode in the stope above this place is worth from 15*l.* to 20*l.* per fathom. The lode in the rise above the 95 east will produce 1 ton of ore per fathom. The lode in the 75 east has very much improved, it is 20 inches to 2 feet wide, and worth from 1½ to 2 tons of ore per fathom, and, as we before told you, we believe this lode will greatly improve; it is getting very like the 55. The lode in the 55 east is 2½ feet wide, and worth fully 2½ tons of ore per fathom. The lode in the winze sinking below the 55 will produce 2½ tons of ore per fathom. The lode in the rise is not quite so well as it was, it will now produce 2½ tons of ore per fathom, it being gossany ore, one day there is a splendid lode, and the next it is not so well, but taking the average, it is a good lode, and will set at a very low tribute. Last month we drove the 55 fathom level end 6 fathoms, and which we estimate has produced fully 20 tons of copper ore. On the whole, we consider the prospects here good, and we also think the mine has a little improved.

EAST WHEAL REETH.—T. Uren, March 3: The mine is looking well, the north and south lode continues its size, and very much improved in quality, there is every appearance that it will do well.

EAST WHEAL RUSSELL.—W. Richards, March 4: The north lode, east of the Tunnel, is a little smaller at the present time, and without any change in its character to report. The middle lode, driving east of the Tunnel, is about 2½ ft. wide, producing quartz, flookan, mundic, green carbonate of copper, and a little copper ore occasionally. We have intersected an elvan course by shoding in the eastern part of the sett, but we have not yet proved the width of it; it is strongly mineralised with oxide of iron, quartz, &c., and in places there are faces of green carbonate of copper.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Feb. 27: The ground in the 82 cross-cut, driving north from King's engine-shaft, is without change during the past week, being mixed up with the south capels of the lode, which is letting out an increased quantity of water as we progress in the drivage. The lode in the 70, east of said shaft, is showing a very kindly appearance, yielding 1 ton of ore per fathom. The lode in Nos. 1 and 2 stopes, going down below the 70, east of sump-winze, is worth 6, 8, and 12 tons of ore per fathom. The lode in the 60 east is showing indications of improvement, now worth 1 ton of ore per fathom. All other points of operation are without change since last reported on. Our last samplings weighed off yesterday 170 tons 1 cwt. 2 qrs., realising 691*l.* 11*s.* 9*d.*

GLASGOW CARADON.—W. Taylor, March 2: Caunter Lode: The 78 west is worth 10*l.* per fm.; a very fine looking lode, and likely further to improve. The stopes on this lode are also improved. There is a little water coming from the cross-cut south at this level, which I think is from Arrol's lode; I expect we are very near it; this is an important point.—Harvey's Lode: The 65 east is worth 8*l.* per fm. In the 65 west we have just cut a cross-course, which has hove the lode; we have not seen it on the other side yet, but hope we shall find it good. No change to notice in the stopes on this lode. We are pushing on the cross-cut south of this lode as fast as possible; also the cross-cut by the western cross-course towards Arrol's lode.

GOGINAN.—March 2: The lode in the 110, east of winze, below the 100 is still hard, producing good saving work, and likely to improve. In the stope over this level, 10 fms. east of winze, the lode is large, and will produce 16 cwts. of lead ore per fathom. In the 100 east the lode is improving, and we are breaking good rocks of ore. The lode in the stopes over the 100, east of rise, varies from 5 to 1 ft. wide, and is worth on an average 16 cwts. of lead ore per fathom. The north lode, in the 60 east, is without any particular change, still producing good stones of ore at times. The tribute pitches in the old part of the mine continue to yield on an average 11 cwts. of lead ore per fathom. We sampled 34 tons of good quality ore on Tuesday last.

GREAT NORTHERN MANGANESE COMPANY.—Mr. Harris, March 3: I send you a report of our works as follows—Adit or Bottom Level: We are driving on the vein, which is running nearly west, composed of shally rock intermixed with clay, with a rib of manganese about 4 in. wide, running up and down.—No. 1 Level: We are driving on the vein, the ground showing indications of a

body of ore. We are opening new ground from old sump on No. 1 level. I am happy to inform you that we have met with a splendid lot of manganese, in lumps varying from 7 to 20 lbs. weight of the best quality. In fact it surpasses anything I have seen here before.

GREAT NORTH DOWNS.—W. Rich, W. Ennor, March 3: We have resumed the driving of the 64, west of cross-cut, at Butler's shaft, on the south lode: the lode in this end is large and promising, and worth 5*l.* per fathom. The winze in the bottom of this level is worth 15*l.* per fathom. The 64 east shows spots of ore. The tin lode in the 48, west of King's, is worth 8*l.* per fathom. The stope in the back of this level is worth 12*l.* per fathom. We are forking the water slowly, and have nearly drained as deep as the back of the 74.

GREAT NORTH LAXEY.—R. Rowe, March 2: The lode in the 110 fathom level end, driving north, has begun to yield a little lead: the lode is 4 ft. wide, and daily improving in appearance. The 96 end is much as last reported, lode about 3 ft. wide, and worth ½ ton of lead per fathom. The lode in the 84 end, driving north, is from 3 to 4 feet wide, and worth still about 1 ton of lead per fathom. The 27 end, driving south, has improved a little from last week; the lode is about 6 ft. wide, and worth from 10 to 15 cwts. of lead per fathom. The several stopes are without any change worth noticing.

GREAT RETALLACK.—J. Harris, March 4: No. 1 Lode: Nothing has been done towards sinking the No. 1 shaft below the 30 since Saturday last, consequently I have no change to report. The lode in the rise above the 30 south is worth from 3 to 4 cwts. of lead per fathom. The lode in the 30 north is 18 in. wide, producing good stones of lead; this end is letting out more water. The stope above this level is worth 4 cwts. of lead per fathom. The lode in the 20 north is 15 in. wide, containing good stones of lead.—No. 2 Lode: The lode at the engine-shaft, sinking below the 40, is from 15 to 18 in. wide, composed of friable quartz and white iron, with good stones of lead and mundic. The lode in the 40 south is 2 ft. wide, composed of quartz and white iron, producing stones of lead; this is a strong and masterly lode. The lode in the 40 north is 1 ft. wide, composed of friable quartz, &c., with good stones of lead. The stope above this level continues to yield its usual quantity of lead—7 cwts. per fathom.

GREAT SOUTH CHIVERTON.—J. Nancarrow, March 1: The spar reported in the 50 west last week continues; there is a great deal more carbonate of lime, and some copper, which has generally been the precursor of lead in this neighbourhood; the size of the lode is not ascertained, but it appears to be very large; the part broken is about 4 ft. wide, and is of such a character that our prospects here are most cheering. The water is increased in the end, and has begun to drain the 40, which indicates our near approach to the lead gone down before the end. There is no alteration in the 40 west; nor in the 50 east. The 40 east looks very encouraging, and the ground is improved. We have commenced rising in the back of the 40, under the rich blende in the 20, and have a very promising lode. We are making fair progress in driving the 30 east. In the 20 east we have cut into the south part of the lode, which is 3 ft. wide, and looks well for the production of lead; we are now driving on it.

GREAT SOUTH TOLGUS.—J. Daw, March 3: We have now about 3 ft. of water in the 140, and we hope to put the men to work on the tin ground at this level to-morrow, but the best tin ground is at the 154; this will take us about a fortnight longer, as we have to drop a side lift below the 140, as something has gone amiss with the plunger.

GREAT WHEAL BADDERN.—Richard Pryor, H. Tregoning, Feb. 27: Hill Brothers Engine-shaft: In the 75 cross-cut south the spar and mundic rising up from the bottom of the end continues its course, but by means of its rapid underlie it will take some few days to determinate, but we believe it to be a part of the tin lode, the ground being mineralised throughout, and strong indications of the same. The ground in the 75 south, on the lead lode, continues favourable for driving, the lode being 2 ft. wide, producing flookan, spar, mundic, and lead, and looking very promising, with an increase of water flowing therefrom. We look for an improvement at both these points shortly.

GREAT WESTERN.—Edward Rogers, Edmund Rogers, March 3: Fisher's Lode: Thomas's engine-shaft is enlarged 23 fms. from surface. The rise in the back of the 10, below adit, is up 5 fms. In the 20, driving east of Pressure shaft, we have cut the south lode, which is 3 ft. wide, worth 10*l.* per fathom. In the rise in back of the deep adit, west of Jones's shaft, the lode is 1 ft. wide, worth 2*l.* per fathom. In the 30 from surface, driving east of Annie's engine-shaft, the lode is 3 ft. wide, worth 3*l.* 10s. per fathom.—Middle Lode: In the 20, at Curtis's, the shaftmen have cut plat, fixed penthouse, &c., and will commence sinking below this level at once. In the end east the lode is 3 ft. wide, worth 3*l.* per fathom. The end west is suspended, by reason of an influx of water; the lode is without alteration since last reported on, worth 5*l.* per fathom. The driving of this level will be resumed again when Thomas's engine-shaft gets to this level. In the 7 under adit, driving east of this shaft, there is no alteration since our last; lode worth 3*l.* 10s. per fathom.—Caunter Lode: In the 20, driving east of Curtis's shaft, the lode is disordered by the influence of the middle lode; we expect an improvement here as the end advances. In the 17 from surface, driving east of this shaft, the lode is 6 in. wide, worth 3*l.* 10s. per fathom. —South Lode: The adit level is driving west of White's shaft by two men, at 2*l.* 10s. per fathom, and 15s. in 1*l.*; the lode is producing a little tin, but not enough to set a value on.

GWYDYR PARK.—W. Smyth, March 2: In the shaft at Gwyn Lliflon the lode is small, and ground spare for sinking; however, we are pushing on with all possible speed. There is no particular change since last report in the caunter branch intersected in the Vucheslas deep adit end. As, however, I should like to open a little more on its course, I have set 1 fm. to four men, for 5*l.*

HARWOOD.—W. Vipond, Feb. 27: The level at Scar Head is set to four men to drive at 45s. 6d. per fm. The two men on Mounce's have to square up the end for driving for 27s. 6d., when they will get a bargain to drive on the vein north. The string at Trough is looking better this morning, more ore than when you saw it; it does really look as if it were going to prove an independent string. If this should be the case Trough may do better yet than expected; it is set to two men to drive, at 35s. per fm.

HINGSTON DOWN CONSOLS.—James Richards, March 4: In Bailey's engine-shaft, sinking below the 140, the lode is 4 ft. wide, composed of capel, mundic, peach, quartz, and a little ore. The stope in the back of the 130 fm. level east of Bailey's shaft, is being worked out; the men are now engaged stoping in the bottom thereof, where the lode is worth 3 tons of ore, or 12*l.* per fathom. In the 85, east of Morris's shaft, the main part of the lode having gone off south, the drivage is turned in that direction for its intersection; the ground at present is hard and slow for progress. In the 55, east of Morris's shaft, and east of the eastern cross-cut, the lode is 2 feet wide, composed of capel, quartz, mundic, and a little ore. In Chenall's rise, in the back of the 55, east of Morris's shaft, and east of the eastern cross-cut, the lode is 2½ feet wide, and yields a little ore. In the adit level south the ground is chiefly killas, with occasional patches of granite, and admits of moderate progress being made.

HOLMBUSH AND KELLY BRAY UNITED.—J. Dainty, T. Odgers, Wm. Johns, March 4: In the 25, west of footway shaft, we are driving north to cut the lode west of the cross-course, where we find the ground all that can be desired for the production of ore, with the intersection of the lode now early looked for. The lode in the winze is 3 ft. wide, worth 9 tons of ore, or 45*l.* to the fathom. In Griffin's stope the lode is 4 to 6 ft. wide, worth 20*l.* per fathom. In the back of the same level Scant's rise is worth 20*l.* per fathom for the whole length of the rise. Maddiford's stope, east of footway shaft, at the same level, on the new north lode, is worth 6*l.* per fathom; the same level east, driven by the side of the lode about 3 fathoms, cut into to-day, and from results so far shows a value of 10*l.* or 12*l.* per fathom. The old Kelly Bray lode, driving east on at the same level, looks highly promising. The general operations at this part of the mine are being pushed vigorously, and we intend selling for this month 100 tons of good price ore. At Wall's shaft, and all matters in connection with this part of the mine, every possible effort is being made to get into the way of draining the water. The erection of the 70-in. engine is going forward rapidly; the three boilers for this engine are in a forward state of repair, and the pitwork delivering as fast as possible. From this part of the mine we also expect to sell 170*l.* worth of produce, in addition to the copper referred to, and with the setting to work of the engine the yield will be greatly increased, to say nothing to the advantage which must result by draining the Kelly Bray new lode to another level.

LOVELL CONSOLS.—J. Nancarrow, March 1: The lode in the 12 west is 2 ft. wide, looks better than it did last week, and contains more tin. We are saving all the lode, and expect it will considerably improve in driving 6 feet further, for we are already draining the water from the bottom of the adit, and are evidently getting into the run of tin gone down there. The water is abating in the adit eastward, so that it is becoming less difficult to clear. The necessary pitwork is purchased, and is on the mine; we intend getting it to work next week, which when done will ease the engine and reduce the expenditure.

MAES-Y-SAFN.—March 2: Grosvenor's shaftmen have commenced to clear the sand that was brought in the shaft by the late floods below the 350, and if we have good speed it will be cleared to the bottom by the end of this month. The 350 west is in a hard bar of ground, and the lode small and poor. The lode in the 330 east is 3 ft. wide, but it does not contain ore in the present end. The lode in the 310 east is spotted with ore, but not enough to value. The sump-winze sinking below the 350 is nearly deep enough for the 370; the lode at this place is 5 ft. wide, and will produce 1 ton of ore per fm. In the 350, east of the sump-winze, the lode is 4 ft. wide, and looking kindly to improve soon, though at present it is poor. The 350, west of sump-winze, is producing a little ore, but not of much value. The 310, east of No. 3 shaft, is not yet quite out of the influence of the swallow, consequently the lode is unproductive. The lode in 270, east of No. 2 shaft, is 4 ft. wide, and yielding good stones of ore. The stopes and pitches are yielding their usual quantity of ore, and our present returns are about 120 tons per month. The water in the mine is very much abated, and the engines are working quite easy to keep the mine properly drained.

MAUDLIN.—John Tregay, Feb. 27: The lode in the rise in back of deep adit level will produce 1 ton of copper ore per fathom, and is promising for improvement. The south branches produce good stones of copper ore. We have a parcel of copper ore at Par Wharf called 11 tons, ready to sample. No other change.

MINERA UNION.—W. T. Harris, March 4: Low's Shaft: The lode in the 60 yard level north is 1½ ft. wide, yielding occasional stones of lead. The ground in the cross-cut is easier for progress, and indicates a near approach to the lode. —Boundry Shaft: The ground in the 60 yard level north consists of chert and limestone; a good deal of water issues from the end. The pitch in bottom of this level south is worth 12 cwts. of lead per fathom.—Brabner's Shaft: The ground in the cross-cut in the 80 yard level is the same as last reported, black limestone and shale. The pitch in back of this level south is worth 15 cwts. of lead per fathom.—Flue Shaft: The pitch in bottom of the 40 yard level north is worth 12 cwts. of lead per fathom. No alteration in any other part.

MOUNT PLEASANT.—W. Wasley, March 4: We are getting on well with driving the 120 yard level west of the cross-cut, north of Jenkins's shaft, and the ground looking a little more favourable for ore than it was. I am glad to say that the tributers at Jenkins's shaft are getting fair quantities of ore, and the flat looking very promising. At Bright's shaft we are getting on well with driving the level east of the cross-cut, north of the shaft, where the ground looks promising for ore. The tributers working to the west of the shaft are getting on middling. We weighed and sold 7 tons of ore to-day, at 12*l.* per ton cash, and without any expense of carriage, &c.

NEW CLIFFORD.—J. Michell, March 4: The cross-cut north of engine-shaft is being vigorously pushed on. We are expecting to cut Weston's lode, and, from the highly mineralised appearance of the stratum, it is close at hand. Our machinery is in excellent order.

NEW GREAT CONSOLS.—Richard Pryor, Richard Trathen, Thos. Bennetts, March 4: Ellis's Engine-Shaft: At present there is a little killas come in the 86 cross-cut in cutting through the lode, which we consider to be a horse between the two parts of the lode seen in the upper level (the 74). The hot water is still coming further north, and from which we are led to believe that the main part of the lode is in this direction. No. 1 stope, in back of the 64, is worth 9*l.* per fathom. No. 2 stope, in back of ditto, is worth 11*l.* per fathom. No. 3 stope is worth 11*l.* per fathom. No. 4 stope is worth 12*l.* per fathom. No. 1 stope, in back of the 50, is worth 12*l.* per fathom. No. 1 stope, in back of the 40, is worth 9*l.* per fathom. No. 2 stope, in back of ditto, is worth 17*l.* per fathom. No. 1 stope, in back of the 30, is worth 10*l.* per fathom. No. 2 stope, in back of ditto, is worth 8*l.* per fathom. No. 1 stope, in back of the 20, is worth 8*l.* per fathom. No. 2 stope, in back of ditto, is worth 10*l.* per fathom. No. 1 stope, in bottom of the 20, is worth 12*l.* per fathom. In consequence of the late heavy falls of rain we have been compelled to suspend, for the present, the sinking of Rendle's shaft.

NEW CROW HILL.—A. Kent, T. Trelease, March 2: At the engine-shaft we are sinking as fast as the nature of the ground will permit, the ground being rather stiff at present.—Wheal Louisa: In the 75 fathom level cross-cut we are pushing on towards the south part of the lode. We have driven through the north limb of the lode, and find it much the same as when seen in the upper levels, producing nice stones of blende and mundic, but without ore to value. We re-set the bargain yesterday, at 6*l.* 10s. The 60 fm. level east is suspended. We are taking samples of our parcel of lead ore.

NEW TRELEIGH.—Fras. Pryor, Samuel Michell, March 1: We set, on Saturday, the following bargains:—The new shaft to sink below the 78 by six men, at 18*l.* per fathom; the lode in the same is producing good stones of ore. The 78 to drive west by six men, at 6*l.* per fathom; this end has improved, and will continue to do so, in our opinion, as we reach the winze sunk below the 70. The 78 east has considerably improved, and will produce full 4 tons per fathom. We have at the surface the best pile of ore we have ever seen from this mine. The stope in back of this level, at 3*l.* 12s. 6d., will produce 4 tons per fathom; No. 2 stope, price 3*l.* 12s. 6d., will produce the same quantity—4 tons per fathom. You will observe that the mine has improved, but not at the points which were predicted by those who inspected it. We shall continue to push on the present points of operation, and, from present appearances, we have great reason to expect success.

NEW WHEAL TOWAN.—R. Pryor, March 3: The lode in the stopes has not yet been taken down. The ground in the cross-cut towards the main part of the lode is a little harder for driving, but we expect to cut into the lode in the course of a few days.

NORTH DOWNS.—F. Pryor, J. Williams, March 2: The 85 fm. level is still letting out a great deal of water, which we consider a favourable indication as we approach the shoot of ore in advance of this end. The sump winze is now down 6 fms., in a good lode of ore for the whole distance sinking. We have a slight improvement in the 60 fm. level, driving west from points of horse. On the whole, we are looking a shade better, and hope to improve.

NORTH RELTALLACK.—J. Harris, March 4: The water is now 4 fms. below the 10, and if it continues to go back as it has during the past week I should hope to resume the sinking of the winze below the 10 next week.

NORTH ROSKEAR.—R. Goldsworthy, R. Angove, March 3: The 216, east of Pearce's shaft, has been extended 2 fathoms; this end is worth 5*l.* per fathom for copper ore, and is re-let at 12*l.* per fathom. The winze in the bottom of the 205, east of Pearce's shaft, has been sunk 3 fms. 0 ft. 7 in; total depth, 7 fms. 2 ft. 6 in.: here the lode is still small and poor, and is re-let at 9*l.* 10s. per fm. Our working in Doctor's shaft has been very irregular during the past month, in consequence of the increase of water; the shaft is 9 fms. 5 ft. 9 in. below the 230, and we have to sink about 7 ft. more to complete this lift. We have two stopes in the back of the 230; the eastern stope is re-let at 3*l.* 15s., and the western one at 3*l.* 10s. per 100 sacks of tinstuff, each worth 12*l.* per fathom. We are sinking a winze 18 ft. long in the 216, which we have re-let at 4*l.* 5s. per 100 sacks of tinstuff; the winze is worth 9*l.* per fathom. We have two stopes in the back of the 216; the eastern stope is re-let at 3*l.* 5s., and the western stope at 3*l.* 10s. per 100 sacks of tinstuff, each worth 8*l.* per fathom. The 140 fm. level cross-cut, south from Wheal Seton, has been extended 1 fm. 2 ft. 1 in.; the ground here is not so hard as it has been, and we hope the men will now make better progress. In the eastern part of the mine we have three stopes in the bottom of the 140—No. 1 is re-let at 3*l.*; No. 2 at 4*l.* per 100 sacks of tinstuff, each worth 9*l.* per fathom; No. 3 is re-let at 5*l.* 10s. per 100 sacks of tinstuff, worth 14*l.* per fathom. Three stopes in the back of the 140, each working at 3*l.* 5s. per 100 sacks of tinstuff, worth on an average 7*l.* per fathom. One stope in the back of the 120, working at 2*l.* 15s. per 100 sacks of tinstuff, is worth 6*l.* per fathom; and one stope in the back of the 100, working at 2*l.* 15s. per 100 sacks of tinstuff, is worth 5*l.* per fathom. Our tribute department has improved, and should the improvement continue the men will do well.

NORTH SHEPHERDS.—Wm. Blewet, Feb. 27: The 63 is now 2½ fms. west of Rye's shaft; here the lode maintains its size and kindly character, but without mineral to value; judging from the kindly gossan over and in advance of this end, the lode in this direction should prove productive after a little time. The same level is 3¼ fathoms east of shaft; here the lode contains lead, and at times appears as if we had reached a good deposit of ore, and from indications this point must lead us to ore in paying quantities, but at present of no real value. The 29 is about 10 fms. west of new flat-rod shaft, on the south lode; our progress is rapid; lode more promising than ever before, and on nearing the junction, only a short distance ahead, an improvement is looked for. Our tributers are in good spirits, and are earning good wages. I think additional hands may be employed in this department in another month. Our lead has been sampled, and I hope in good time to be in a position to give you particulars of sale. The quantity is as follows:—No. 1, 30 cwts. 3 qrs.; No. 2, 19 cwts. 1 qr. 14 lbs.

OKEL TOR.—J. Rodda, March 4: The stope in the back of the 80 east will yield about 2 tons of ore per fathom. We have opened out another stope at this level during the past two months, in which the lode for 5 fathoms in length will yield 3 tons of ore per fathom. This ground will be set to work on Saturday next. The lode in the rise in the back of the 80, west of the cross-cut, is looking kindly, and producing 1 ton of ore per fathom. In the 65, east of Gerry's cross-cut, the lode is looking very well, and will produce from 4 to 5 tons of ore per fathom; this end is sufficiently advanced so as not to interfere with the sinking of the new winze, which will be resumed immediately. The lode in the 65 end, west of the cross-cut, is rather disordered for the present. There is, however, a good branch of ore in it, worth about 1 ton per fathom. No alteration in the 65 cross-cut south, except an increase of water coming from the breast of the end. The seven pitches will turn out on the average 3 tons of ore each per fathom.

OLD GUNNISLAKE.—F. Phillips, March 3: There is little change to notice in Parker's shaft since last week; about 2½ ft. has been sunk. In the 48 they are driving through a beautiful channel of decomposed granite beside the lode; about 2 fms. have been driven since last report. We have now loaded our boiler on the wagon, and hope to get it over all right this afternoon.

PEDN-AN-DREA UNITED.—W. Tregay, J. Thomas, Feb. 27: Sump: The water although still very quick has been kept in fork throughout the week, and we have been working in the bottom level regularly, the lode in the 140 west end being worth 30*l.* per fathom. We have set the 140 east end to drive on Skimmer's south lode; the lode being large, and promising for the production of tin. We have set the 120 west winze to sink, and hope to commence on Monday morning the lode here being worth 10*l.* per fm. In the 120 east end the lode is worth 12*l.* per fathom. In the 120 north cross-cut the ground is favourable for driving, and good progress is being made. In the 100 east rise the lode is small, producing a little tin; ground favourable for rising. We have set to drive an intermediate level near the top of this rise, both for proving the lode away from the cross course and for a covert for the men to protect them in blasting. In the 68 east the tinstone is at present of low quality.—Cobbler's: Martin's Lode: In the 120 west end the lode is worth 5*l.* per fm.; letting out much water, and promising improvement.—North Lode: In the 90 west end the lode is worth 50*l.* per fm. The lode in back of this level is also worth 50*l.* per fm. We have set to drive east here into the cross-course to prove the lode through it. We shall be unable to continue the rise until this east end has advanced a few feet. In the 55 the lode in the bottom of the north shaft is worth 40*l.* per fm. In the 55 west end the lode is worth 30*l.* per fm. In the 47 west cross-cut we believe we have the north wall of the lode; the lode here is worth 40*l.* per fm., and we have set the men to drive west on its course. The pitches throughout the mine are producing their usual quantities of tin, and are looking well for continuance. No other changes to report.

PENHALE UNITED.—Rich. Pryor, Henry Bennetts, Joseph Pryor, March 2: Friday last being our pay and setting, the following bargains were set:—Phillips's engine-shaft to sink below the 90 by six men and three labourers, at 15*l.* per fathom; lode 2 ft. wide, worth 1 ton of lead per fathom. The shaftmen will complete the casing and dividing and putting in footway this week, after which the sinking of the shaft will be pushed on with all possible speed, which will result in laying open some valuable ground. The 90 to drive north of Phillips's engine-shaft by six men, at 3*l.* per fathom; lode worth 6 cwts. of lead per fathom, and promising for improvement. This level to drive south of shaft by two men, at 5*l.* per fathom; lode disordered, and not of much value, but, judging from its appearance, believe it will shortly improve. Hall's shaft to sink below the 90 by six men, at 12*l.* per fathom; we cannot say much as to the value of the lode at this point as yet. The 90 to drive north of Hall's shaft by six men, at 3*l.* per fathom; lode 1½ ft. wide, worth 10 cwts. of lead per fathom. This level to drive south of shaft by four men, at 3*l.* per fathom; lode worth 3 cwts. of lead per fathom—a kindly lode. The 80 to drive north of shaft by four men, at 4*l.* per fathom; lode producing good stones of lead. We also set several tribute pitches, at tributes varying from 6*l.* to 9*l.* per ton of lead. Our pay and setting went off very satisfactorily.

PENHALE WHEAL VOR.—W. H. Martin, March 3: At our pay, on Friday last, the following bargains were set:—To continue the sinking of the engine-shaft to the 109, by 12 men, at 15*l.* per fm. We have had a very great change in the shaft during the past week, as we cut a slide which underlies south and dips west; the slide is composed of the same character stuff as that in Wheal Vor Metal, under which they had rich courses of tin. I consider this to be the most important change we have yet had.—Penhale Lode: To continue the sinking of Ritchie's shaft to the 75, by eight men and four boys, at 14*l.* per fathom; the lode is 18 inches wide, of much the same character as last report; the shaft being very wet, and the ground harder, makes the progress at this point slow. We have also three pitches working, at 15s. tribute.

PENHALLS.—S. Bennetts, W. Higgins, Feb. 26: The ground in the shaft below the 70 continues good. The lode in the 70 east is worth 10*l.* per fm.; in the west end it is disordered just now by some cross-joints. The 60 east, south of cross cut, is apparently in the capels of the downright lode. The 55 east, on the new lode, is worth 7*l.* per fm.; and west of the same level, 8*l.* In the 50 cross-cut north nothing further has been met with of any lode. The 45 east is worth 6*l.* per fm.; and the winze below the 40, on the same lode, 8*l.*—Pink Mine: The lode in the Shop shaft, below the 30, is worth 7*l.* per fm.; in the 30 west it is large, with saving work; and in the 20 west it is worth 10*l.* per fm. The various pitches throughout the mine are, on the whole, much the same as they have been for some time past.

PRINCE OF WALES.—J. Gifford, W. Gifford, March 4: On Saturday last the following bargains were set:—To drive the 65 east, by six men, stent to cut the cross-course, at 7*l.* per fathom; lode 2½ feet wide, worth 15*l.* per fathom. To drive the 65 west, by six men, stent the month, and carry all the lode, at 8*l.* 10s. per fathom: lode 5 ft. wide, worth 12*l.* per fathom. To drive the 55 west, by four men, stent 2 fathoms, at 4*l.* per fathom, lode small and poor. To drive the 55 east, on new south lode, by two men, stent the month, at 65s. per fathom; lode 1½ ft. wide, composed of capel and quartz, with occasional stones of copper ore and mundic intermixed, but not to value. To cut south in the 55 east, towards the new south lode, by four men, stent the month, at 5*l.* per fathom. To drive the 45 west, by two men, stent 2 fathoms, at 4*l.* per fathom; lode 2 ft. wide, composed of capel and quartz. A stope in back of the 55 east, by four men, the month, at 55s., per fathom; lode worth 15*l.* per fathom. A stope in the back of the 55 west, by four men, the month, at 3*l.* per fathom; lode worth 10*l.* per fathom. No. 2 stope, in back of the 55 west, by four men, at 75s. per fathom; lode worth 10*l.* per fathom. A stope in back of the 45s. west, by four men, the month, at 55s. per fathom; lode worth 8*l.* per fathom. A pitch in the 45 east, by two men, for two months, at 10s. tribute and 12s 6d. per produce. Watson's shaft is down 2 fathoms below the 65, and the men busily engaged cutting tip-plat, &c. To drive the 55 east, by two men, stent 2 fathoms, at 50s. per fathom; lode 2 ft. wide, principally capel and gossan.

PRINCESS OF WALES.—T. Foote, G. Rickards, March 3: We continue to make good progress with the sinking of Harris's engine-shaft below the 20 fm. level; the ground is of the same favourable description as previously reported on. In driving the cross-cut north in the 20 we have just cut through a branch or lode about 15 inches wide, composed principally of friable spar, iron, &c.

PROVIDENCE.—William Hollow, Philip Rogers, Benjamin Martin, March 3: Higgs's Shaft, Standard Lode: The 150 is 2 feet wide, producing stones of tin of a promising character. In the 140 the lode is worth 4*l.* per fathom, and has a kindly appearance for an improvement. The ends and stopes on the caunter maintain their value as last reported.

REDMOOR.—T. Taylor, March 4: We have not yet reached the lode in the 25, east of the cross-course, and are still driving south; it contains mundic, spar, and spots of lead, but it is not far enough east, and bearing wrong for the lead lode. We are obliged to let out one of the fires, to clear the flues of arsenic and sulphine.

ROARING WATER.—H. Thomas, March 2: During the past week the caunter has been small and pinched, but now opening to its usual size; we have passed through two branches 1 ft. wide each, which I consider to be limbs of Grady's lode. Yesterday I directed the men to open west on the south branch or lode, now 2 ft. wide, containing friable quartz, peach, and rich yellow and grey ore up and down the end; at present the lode appears strongest in the bottom, and no doubt when we get clear from the effects of the caunter the lode will prove more productive. If indications are to be relied on, we may fairly calculate on soon having a good lode. It is probable I shall write you again to-morrow, as by that time I hope to be able to judge more correctly of the lode referred to.

SOUTH CONDURROW.—Joseph Vivian and Son, March 2: Owing to some breakages in the pitwork (which has been again repaired) we have not been able to drain the water from the 71 fm. level. In the 61 fm. level ends, both east and west, and in the stopes in the back of the same, there is no alteration since the last report, and this is also the case with other parts of the mine. We purpose selling a parcel of tin on Saturday next, on which the recent advance in the standard will give us an increase in price of about 3*l.* 15s. 6d. per ton over that which we should have had had we sold at the usual time.

SOUTH DARREN.—J. Boundy, Wm. H. Boundy, Feb. 27: Setting Report: The 70 to drive west, by six men, at 9*l.* 15s. per fm.; the lode in the end is 2½ ft. wide, and worth 15*l.* per fm. for lead and copper ore; the lode at this point has a most promising appearance. In the 60 west cross-cut north during the week we have met with some branches, containing carbonate of lime, with spots of lead and copper ore; we think it advisable to drive this cross-cut a little further, so as to be fully satisfied respecting the lode at this point. To stope the back over the 60 west, by four men, at 80s. per fm.; the lode is 2 ft. wide, worth for lead and copper ore 12*l.* per fm. To stope the back over this level west from the winze by eight men, at 80s. per fm.; the lode is 2½ feet wide, and worth for lead and copper ore 14*l.* per fm. To stope the back over this level east from the winze by six men, at 80s. per fm.; the lode is 2 ft. wide, and worth for lead and copper ore 9*l.* per fm. The 50 to drive west, by four men, at 7*l.* 15s. per fm.; the lode is 20 in. wide, worth for lead and copper ore 10*l.* per fm. To stope the back over the 50 west, by six men, at 80s. per fm.; the lode is 2½ ft. wide, and worth for lead and copper ore 14*l.* per fm. To stope the back over the 50 east from the winze by four men, at 85s. per fm.; the lode is 2 feet wide, and worth for lead and copper ore 10*l.* per fm. To stope the back over the 40 west, by four men, at 75s. per fm.; the lode is 2 ft. wide, and worth for lead and copper ore 11*l.* per fathom. The shallow level to drive east, by two men, at 6*l.* 15s. per fm.; the lode is 8 in. wide, containing sulphur and spots of copper, but not to value. We shall sample a parcel of lead next week.

SOUTH GREAT WORK.—S. J. Reed, E. Chegwin, March 3: The ground in the 17 cross-cut, south from Boase's shaft, has been harder for driving, consequently the progress has been slow. No. 1 lode, west of shaft, still produces rich stones of tin; driving at 50s. per fathom. We are getting near the bottom of the old workings at the shallow adit, on Giant lode, where we expect to find a good lode for tin. Will write when anything good is discovered.

SOUTH HERODSFOOT.—W. Goldsworthy, March 4: We are pushing on the cross-cut at the 100 as fast as the nature of the work will allow; the ground is still of a very favourable character, and letting out water.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Feb. 27: We have to-day set the 42 to drive east and west from the cross-cut at the 40, to ten men, at 8*l.* per fm., where the lode is 2 feet wide, of quartz, &c., with stones of ore—a very strong lode, and we hope by opening out at this level we shall meet with a productive lode.

ST. JUST AMALGAMATED.—R. Pryor, Wm. White, R. Wearne, March 3: The tutwork bargains throughout the mine continue much the same as when last reported on, with the exception of the lode in the 40, driving north of Reddipper shaft, which has improved, being now worth 6*l.* per fathom. Saturday next being our pay and setting, a full report shall be sent you.

TAMAR VALLEY.—J. Goldsworthy, March 4: The ground in the 57 fathom level cross-cut east is a little more mixed with quartz, which renders the progress somewhat slower. The lode in the 57 south is 4 ft. wide, of a promising character, and producing rich stones of silver-lead ore. The 47 south is cleared to the end; the last 15 fathoms is driven by the side of the lode. I have put men to strip down the lode to prove its size and value. The tribute pitches are looking well, and the surface work is progressing satisfactorily. We shall commence dressing our silver-lead and fluor-spar this week.

TIN VALLEY.—R. Southey, March 1: The men are making good progress in driving lobby to get into the main tin lode, and in about a fortnight we expect to cut it, when we shall drive on its course. We are busy putting the stamps in good order to begin stamping the burrows, there being thousands of tons that will pay; at the same time all speed will be made with the calciners, arsenic chambers, and new flue to the engine-house stack. Every exertion is being used to get the works into full operation, and, with the present improved price for tin, the results will be better than at first calculated upon.

TREREW.—March 1: The plunger-lift is fixed in the cistern below the 32, and the sinking lift in its place below. There is a trip-plat cut, and the 32 cross-cut set to drive to the lode at 4*l.* 10s. per fm., by six men. The ground in the 20 fm. level south is improving, and the lode (a part of which is in the end) is getting more loose, and easier for opening; we have set the end to drive by six men, at 3*l.* per fm., the takers to pay for drawing. The ground is improving in the 20 north also; it is now set to two men and two boys, the month, at 2*l.* 10s. per fathom, also to pay for drawing; we calculate on driving this end so far north as the old whim-shaft, which is about 10 fms. more to drive, and then bring the shaft down to this level; when completed there will be plenty of air for the 29 and 32, and these must be kept going, as no doubt the most kindly ground is before this end. We shall now proceed to put in a balance-bob without delay, which we purchased of Penhallow Moor Mine Company. The men will to-day begin to take it out and send it to the mine. The carriage is not far, about 2½ miles, so we shall soon have it up and in its place, the price was 11*l.* complete.

VAUGHAN.—March 2: The deep adit level eastward is let to six men, for two months, to drive, at 7*l.* 10s. per fm.; the ground at this point is composed of hard beds of grit and spar, which makes it hard for exploring. The new shaft, sinking on the north lode, is let to two men, for two months, at 3*l.* 10s. per fm.; the lode is about 4 ft. wide, composed of clay-slate, carbonate of lime, and yielding good stones of ore at times, which looks promising for improvement in depth.

VIGRA AND CLOGAU.—W. J. Cooke, March 4: St. David's Lode—No. 2 Mine: The level driving east, towards the great cross-course, is opening out; it is at present fully 6 ft. wide. We have passed through a floor of poor quartz, and the visible gold that was mentioned in my last report is holding on over the level. Some stones of quartz have been broken to-day containing visible gold, which is yet to be seen in the solid rock. The lode in the rise is 7 ft. wide; water is making rather freely, but the stuff has improved in appearance. The cross-cut south from No. 6 has been driven through the casing of greenstone, and is 3 or 4 ft. in the country slate. The men from this place will return to the stope east from No. 6, where I expect soon to break some visible gold. At the reduction works some new guides, sieves, &c., have been fitted to the stamps; the 16 heads are again doing good duty. All the other work is progressing the same as usual.

WEST DRAKE WALLS.—Thomas Gregory, March 4: We are driving by the side of the lode in the 40, west of cross-cut, the ground being favourable for progress. In the 40, east of cross-cut, the lode has a very promising appearance, and is producing some good stones of ore. The 40 cross-cut south is being continued towards the Prince of Wales lode. We shall put two or four men to open on the course of the caunter lode in a few days for proof of the same.

WEST GREAT WORK.—S. J. Reed, March 3: We have resumed driving the 40, west from flat-rod shaft, on the great north lode; it is 1 ft. wide, yielding tinstuff for the stamps. The 30 west has improved; lode 2 ft. wide, worth 8*l.* per fathom; driving by four men, at 45s. per fm. This lode in the 20 west is worth 7*l.* per fathom. In the east end it is 1½ ft. wide, worth 4*l.* per fathom. Watson's shaft, sinking below the 20, is down 5 fms.; lode yielding saving work for tin. In the cross-cut south in this level we have intersected two branches, producing stones of tin and copper ore. The lode in the 8, east of Watson's shaft, is worth 13*l.* per fathom. This lode, driving west of Harvey's shaft, is 1¼ ft. wide, worth 6*l.* per fathom. Retallack south lode, driving west of shaft, is 1 ft. wide, worth 3*l.* per fathom. I have set the usual number of tribute pitches, at tributes varying from 3s. 6d. to 15s. in 1*l.*

WEST PRINCE OF WALES.—W. C. Cock, March 2: We are progressing favourably with the cutting of the plat, &c., in the 30, at south engine-shaft. The north engine-shaft is being sunk as fast as the nature of the ground and the water will permit.

WEST WHEAL KITTY.—Wm. Vivian, March 4: In the middle adit end, west of Western's shaft, we still continue to drive on the south side of the lode, as the lode is still very wet from the appearance of the Bantry rock, I think we may shortly expect an improvement at this point as we approach the cross-course, from which, in the adjoining mines, large quantities of minerals have been profitably returned on the parallel lodes about the cross-course, a little west of our present workings.

WEST WHEAL TOLGUS.—March 3: The water at Taylor's engine-shaft is drained 7 fms. 2 ft. below the 50 fm. level. The engine is working steadily, and forking from 6 to 8 ft. of water in 24 hours. The lode in Richards's shaft has not been taken down since last reported.

WEST WHEAL TREMAYNE.—S. Roberts, March 2: We are pushing on the sinking of the engine-shaft with all possible speed; during the past week the ground has been hard, but is more easy now; lode 9 in. wide, of spar, spotted with ore. On Saturday we set a rise in the back of the 20, on south lode, to rise against the bottom in the bottom adit, to four men and four boys, at 30s. per fathom; lode 6 in. wide, composed of very kindly spar, with a little yellow ore. The 20 west, on south lode, is set to our kibble filler and lander (when not hauling), the month, at 30s. per fm.; lode as reported last week. No other change.

WHEAL AGAR.—E. Rogers, March 3: The cross-cut in the 170, from flat-rod shaft, is progressing favourably, and letting out more water, which is strongly mineralised, and leads one to believe the lode is not far off. The plat at the 130 engine-shaft is not yet finished, but is being completed as fast as possible. There is no change in the 110 end.

WHEAL BULLER.—J. Inch, J. Brown, March 3: Hocking's shaft, sinking under the 92 fm. level, is worth for tin and copper 12*l.* per fathom, and we are making good progress in sinking. The bargains and pitches throughout the mine are looking just the same as last reported. We have repaired the well-work of the stamps' engine, which has gone to work all right, and is working well.

WHEAL CREBOR.—J. Gifford, March 1: In consequence of our being engaged cutting ground at the bottom of the shaft for fork, &c., also fixing windbore and 7½-in. working, in the place of the sinking pipes and 6-in. working, preparatory to letting down the water in Kelly shaft, but very little has been done in the bottom ends since last reported, consequently there is no change to notice. Our January sampling of ore weighed on Friday last over 61 tons.

WHEAL COURTENAY.—J. Gifford, March 1: No change in the character of the lode in the deep adit to notice since my last. We sampled on Friday last (computed) 25 tons of copper ore.

WHEAL FRIENDSHIP.—March 2: Bennetts's Lode: The lode in the 170 fm. level, driving west from the flookan cross-course, continues small and poor. In the 150, west from Whitburn's cross-cut, the lode is 3 feet wide, and will yield about ¼ ton of ore per fathom. The lode in the rise in the back of this level is 3 feet wide, and will yield 3 tons of ore per fathom for length of the rise (10 feet). We intend to rise about 4 feet more, and then commence driving east and west from the said rise. We have commenced sinking and stoping in the bottom of the 150, west from the rise, by three men and three boys: the stope will produce 1¼ ton of good ore per fathom. From having intersected some branches of spar in Caraline's shaft, and with increase of water, our progress in sinking is slow. The shaft is now down about 11 fathoms below the adit. We have nothing new to report in the 80 fm. level cross-cut, south from Curtis's shaft.—Main Lode: The mid level, driving east between the 40 and 70 fathom levels, and the 40, west of Ward's cross-cut, are suspended for the present.

WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Feb. 27: Setting Report: The 140 west, by six men, at 5*l.* per fm.; lode 2 ft. wide, with a little tin, but not to value. The 130 west, by four men, at 6*l.* 10s. per fm.; lode 2½ ft. wide, also producing a little tin. The 120 west, by four men, at 5*l.* per fm.; lode 3 ft. wide, and worth 7*l.* per fm. The 100 east, by four men, at 10*l.* per fm.; lode worth 7*l.* to 8*l.* per fm. The 90 cross-cut north, by six men, at 15*l.* per fm.; here we are continually meeting with strings or veins of tin dipping north towards the lode, and we feel confident that we shall meet with it where we anticipated, hence we think this is indeed a good speculation, as it will undoubtedly open up a good mine. The 80 west, from the new shaft, by two men, at 4*l.* per fm.; lode 2 ft. wide, and worth 6*l.* per fm. The 80, west of the north shaft, by four men, at 4*l.* 10s. per fm.; lode small, but judging from the appearance of the productive lode we have at the 66 and also at the 90, we anticipate an improvement, and judging from these levels we believe and think that we shall lay open some good tribute ground. The 66, west of new shaft, by four men, at 7*l.* 10s. per fm.; lode worth 8*l.* per fm.—Tribute: The lode in the 90, east from the north shaft, is worth fully 10*l.* per fm. The lode in the 66, west from ditto, is worth 12*l.* per fathom. The lode in the 66 east is worth 3*l.* per fm. The lode in the 54 east is worth 5*l.* per fm. The lode in the 54 west is worth 6*l.* to 8*l.* per fm. The lode in the 42 west is worth 3*l.* per fm. We shall sell a good parcel of tin on Tuesday, and we hope by reserving our sale till that day that we shall have the benefit of the rise which is very likely to take place, and which we think will make from 30*l.* to 50*l.* difference in our sale.

WHEAL KITTY (St. Agnes).—S. Davey, W. Polkinghorne, Feb. 27: All our bargains throughout the mine are much the same in value as reported last week for the quarterly meeting.

WHEAL TRELAWNY.—W. Johns, Thomas Grenfell, John Pryor, March 3: We are urging on the sinking of Trelawny's engine-shaft as fast as possible, by nine men, in which we have still as beautiful a class of ground as can be desired. In the 220, north of shaft, we shall continue to drive on by the side of the lode until we think it advisable to cut into it. We have commenced to sink a winze in bottom of the level above, about 10 fms. in advance of this end; this will also be sunk by the side of the lode for dispatch. In the 210 south we have again cut through the lode; and, although not quite so rich as when last cut into, it is presenting a very promising appearance, and may now be quoted worth 5*l.* per fathom. In the 210 north we have a pare of men now engaged in stripping down the capels of the lode, and we shall be able to say how the leading part of it is looking in our next report; in the extreme end the ground seems to be easing, which augurs well for finding the lode more productive. In the 210, north of Smith's shaft, the lode is much the same as for some time past, worth 7*l.* per fathom. Neither is there any change to notice in the 210 south; the lode is large, but not rich. In the 196, north of Chippendale's shaft, we are driving the end on tribute, by six men, at 5*l.* per ton; the lode is worth 20*l.* per fathom. We sold during the past quarter 218 tons (computed) of silver-lead ore, realising about 4900*l.*, and we are in a fair way of dressing for another sampling.

WHEAL UNY.—S. Coade, M. Rogers, Feb. 27: The engine has been working well all the week, at the rate of eight strokes per minute, and draining the water 3 ft. in 24 hours; we have also drained the water at North Buller 10 fathoms below the 50, where we found it, and expect to get down to the 65 in two or three days, we shall then see by next Saturday, I hope, if it does relieve us here at Uny; we have never had as much water in the mine before. We are working all ground that will pay above the 110 fm. level.

CHONTALES.—It is understood that of the 15,000*l.* debenture be issued 10,000*l.* is already subscribed and guaranteed. We ho therefore, the company has now got over its difficulties, and that prosperity will attend its future. We believe Mr. Belt returns to the mines by the steamer on the 17th inst.

GOLD MINING IN BRAZIL—THE DON PEDRO COMPANY.—A telegram was received yesterday to the effect that the amount of gold cleared up to Feb. 2 was 17,781 oits., and the estimated produce for January 19,500 oits. The produce for January, 1868, was 11,105 oits. The estimated produce for December was 19,500 oits.; the actual produce, 21,499 oits. The result of the operations of the first month being so largely in excess of that realised during the corresponding period of the previous year would appear to be practically proving the accuracy of Capt. Thomas Treloar's statement, that the reserves of auriferous ground are more extensive than at the end of 1867, that prospects are better; in short, nothing can be more satisfactory than the present state of the mine, and the prospects and condition of the establishment generally.

THE VAN MINE (Montgomeryshire).—This property, which is now deservedly attracting so much attention, was originally opened by Mr. Morris, of Oswestry, and Mr. Howell, of Bagillt, who worked it on their own responsibility. Upon the decease of both those gentlemen the executors sought to have their affairs administered by the Court of Chancery, and the result was the disposal of the property to a company divided into 12,000 shares, the directors of which are gentlemen of the highest standing in the commercial world. The lode is described as being without a parallel, being about 7 or 8 fms. wide, and that where cut through, in the 15, it is 10 fathoms 2 ft. wide. The lode in the shaft sinking below the 15 is valued at 4 tons per cubic fathom. The crust of the lode in the 30 has been penetrated, and is already producing lead and blende similar in character to that seen in the 15. The present returns are 150 tons of lead per month, and the machinery now in course of erection will enable the returns to be increased threefold. The powers of production seem to be unexampled, more resembling quarrying than ordinary mining, although the lode is of a thoroughly well-defined character, and has been traced and proved in the sett for about 1½ mile, and to the east for upwards of two miles beyond the present operation. The costs of working are exceptionally small, to much so that it is calculated that with a return of 250 tons per month the profits realised will be equal to a dividend of 10s. per share per quarter.

GREAT WESTERN MINES.—By referring to the report it will be seen that the south lode has been met with at the 20, and valued at 10*l.* per fathom; this is important, it being in whole ground. The ground in this mine is very easy for exploring, and a lode of the above value can be wrought at a good profit.

THE BRYNPOSTIG MINE (Montgomeryshire).—The details of the half-yearly meeting appears in another column. It will be seen that the Chairman (Mr. Job Taylor), in reply to a question, stated that the lode being developed is the nearest known parallel to that in Van, and that when another level shall have been opened, the monthly returns of ore will be increased from 40 to 150 tons. With 40 tons the mine yields a good profit, and by the judicious step now taken to provide more powerful machinery, there seems no reason to doubt that Brynpostig will occupy a favoured position in this locality, to which so much attention is now being directed.

CWM DARREN.—This mine continues to prosper. The indications are satisfactory, and the lode at the engine-shaft increasing in value. Operations are conducted in a miner-like manner, and nothing has occurred to impede the bringing of the mine into a remunerative state. It is confidently anticipated that it will yield a rich reward to its proprietors.

The GREAT ROYALTON TIN MINE has lately been privately introduced. It is situated in the parish of Roche, Cornwall, at the head of the celebrated Goss Moors, from which millions worth of tin have been raised. Captain Parkyn, the agent, states that he will be able to raise 4 tons of tin per month, at a cost of 30*l.* per ton, which, at the present price of black tin, would fetch nearly 80*l.* a ton. There are four lodes in the sett, two of which dip north, and the other two south, consequently they will form a junction at a depth of 12 fms., where the agent states he believes great quantities of tin will be found. These lodes have been opened and sunk on for 6 ft. in depth, and rich tin taken out from the main lode. The lodes are embedded in killas near to the granite, and will be intersected by a large elvan course, containing a great number of rich tin branches; and they can be traced for a considerable distance, and have been laid open at different points, and found rich for tin, thus proving their continuance. With the present state and prospects of the tin trade, the undertaking is considered to offer every prospect of success.

THE CHANNEL BRIDGE.—It appears from the French papers that a proposal has been made to M. Boutet, the projector of this enterprise, to undertake the connection of the town of St. Malo with the French coast by a causeway or viaduct, constructed on his system, and that the Anglo-French Channel Bridge Company are about to undertake this work. The town of St. Malo stands upon an island, distant from the mainland, with which, however, it is in some measure connected by a causeway, usually covered by the sea. A road raised upon a bridge, such as M. Boutet has proposed for crossing the Channel, would, therefore, be a great advantage to such a locality, and it would afford the company an excellent opportunity of demonstrating the feasibility of M. Boutet's mode of construction, which, indeed, seems to be pretty well acknowledged in Paris. The proposition forms the subject of a very elaborate criticism in the February number of "Le Genie Industriel," a valuable and influential French work, which has been long devoted to the examination of leading scientific works. The writer of the article in question, M. Fieort, demonstrates the theoretic soundness of the principles on which M. Boutet relies.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MARCH 5, 1869.

COPPER.	£	s.	d.	£	s.	d.
Best selected..p. ton	83	0	0-	—		
Tough cake and tile	80	0	0-	—		
Sheathing & sheets.	83	0	0-	—		
Bolts	83	0	0-	—		
Bottoms	85	0	0-	88	0	0
Old (Exchange)	69	0	0-	70	0	0
Burra Burra	83	0	0-	—		
Wire.....per lb.	0	1	0	- 0	1	0½
Tubes	0	0	11¼-	1	0	

BRASS.	Per lb.
Sheets .....per lb.	9d.- —
Wire ..... „	8¼d.-8½d.
Tubes..... „	10½d.-11½d.
Yellow Metal Sheath.p. lb.	7¼d.- —
Sheets ..... „	?d.- —

SPELTER.	Per ton.
Foreign on the spot.£22	0 0- —
„ to arrive.. 22	0 0- —

ZINC.						
In sheets	£26	0	0-27	0	0	

TIN.			
English blocks	125	0	0
Do., bars (in barrels)	126	0	0
Do., refined.....	130	0	0
Banca	130	0	0
Straits	127	0	0

TIN-PLATES.*	Per box.					
IC Charcoal, 1st qua.	1	8	0-	1	10	0
IX Ditto, 1st quality	1	14	0-	1	16	0
IC Ditto, 2d quality..	1	7	0-	1	8	0
IX Ditto, 2d quality..	1	13	0-	1	14	0
IC Coke.....	1	4	0-	1	5	0
IX Ditto	1	10	0-	1	11	0
Canada plates,p.ton..	13	10	0-	—		
Ditto, at works	12	10	0-	—		

* At the works, 1s. to 1s. 6d. per box less.

IRON.	Per ton.					
Bars Welsh, in London	6	12	6-	6	15	6
Ditto, to arrive	6	10	0-	6	12	0
Nail rods	7	0	0-	7	2	6
„ Staffd. in London	7	12	6-	8	10	0
Bars ditto	7	10	0-	9	10	0
Hoops ditto	8	2	6-	9	15	0
Sheets, single	9	2	6-11		0	0
Pig No. 1, in Wales..	3	15	0-	4	5	0
Refined metal, ditto..	4	0	0-	5	0	0
Bars, common ditto..	6	0	0-	—		
Do. merch. Tyne or Tees	6	10	0-	—		
Do., railway, in Wales	6	0	0-	—		
Do., Swed. in London.	10	0	0-10		7	6
To arrive	10	7	6-	—		
Pig, No. 1, in Clyde..	2	14	9-	3	2	6
Do. f.o.b. Tyne or Tees	2	9	6-	—		
Do. Nos. 3,4, f.o.b. do.	2	6	6-	2	7	0
Railway chairs	5	10	0-	5	15	0
„ spikes	11	0	0-12		0	0
Indian Charcoal Pigs, in London, p. ton..	7	0	0-	7	10	0

STEEL.	Per ton.					
Swed., in kegs (rolled)..	—		-	—		
„ (hammered)..15	5	0-15	10	0		
Ditto, in faggots 16	0	0-	—			
English, spring	17	0	0-23	0	0	
QUICKSILVER (p. bottle)	6	17	0-	—		

LEAD.	Per ton.					
English Pig, com.....	19	5	0-19	7	6	
Ditto, LB.....	19	12	6-	—		
Ditto, WB	21	10	0-	—		
Ditto, sheet.....	20	5	0-	—		
Ditto, red lead	21	0	0-	—		
Ditto, white	27	0	0-30	0	0	
Ditto, patent shot....	22	0	0-22	10	6	
Spanish.....	18	5	0-18	7	0	

REMARKS.—The Metal Market still continues to maintain a position of activity, and the marked contrast it now exhibits to that which it did a few months since is highly gratifying. Then, everything connected with the trade appeared in a depressed condition, and there was but little prospect of improvement, although all interested in the trade were hoping that a change for the better would take place; but now considerable animation is apparent, and in some metals especially there has been great excitement, which has not yet worn off. A large amount of business continues to be done, and in all directions there is a prospect of a still larger business being transacted, and of the trade altogether being soon established upon a permanent basis of vigour and prosperity; and this will doubtless become more fully developed as the spring advances. A good deal of speculative feeling is still manifested in the market in certain directions, and transactions of considerable moment have taken place, and this tends in a great measure to keep up prices, which in some instances have advanced to a point which has not been reached for a long time past, and there still seems every reason to suppose they will yet go higher. The Money Market also continuing easy, and the rate of interest low, have rendered great facilities for this kind of operations, and enabled parties to go into them with every prospect of securing a considerable profit. Merchant orders are also now coming in with much greater regularity, and we hope soon to see established a return of the former activity in this important part of the trade, which is so essential to its continued and permanent prosperity, as nothing can make up for any length of time for the want of a real legitimate demand, without which the market cannot be maintained in a healthy state for any lengthened period. We, therefore, rejoice to see the marked improvement which is now taking place in this direction also.

COPPER.—The market for this metal has been remarkably quiet during the week, considering the activity which prevailed in it a short time since. For the present, however, transactions have been very limited, and prices are not quite so firm as they were. The quotation for Chili bar is now 72*l.* cash.

IRON.—In Staffordshire there have been rather more orders given out for home consumption during the week, but the demand for export is rather dull; as the Baltic, however, is now open, we may look for more orders from the Continent. The prevalence of short time at the mills and forges is affecting the demand for pig-iron, and prices are hardly so firm as they were, though at present there is not much doing. In Welsh the exports have rather increased during the week, owing to the arrival of several vessels of heavy tonnage. For bars there is a moderate continental demand. In Swedish iron there is still considerable activity, and a very good amount of business is being done, the demand being still lively. In Scotch pig-iron the market has been dull throughout the week, and prices have gradually declined, the last price received from Glasgow being 53s. 8d. cash.

LEAD.—The demand is now very good, and business is becoming more active; prices are also decidedly stiffening.

TIN.—On Monday the smelters of English announced another advance of 5*l.* in blocks and bars, and 6*l.* in refined, making present prices 125*l.* for blocks, 126*l.* for bars, and 130*l.* for refined, at which they are very firm. The market for foreign has continued to progress upwards, and considerable business done at advanced prices. Straits has been sold at 125*l.*, 126*l.*, 127*l.*, and 127*l.* 10s. cash, but latterly became a trifle easier, and now quoted 127*l.* cash. Banca is still quoted at 130*l.* The Dutch Trading Company have announced their next tin sale for April 1 to consist of 49,500 slabs Banca and 700 slabs Billiton, on the usual conditions, and the smallness of the sale has greatly contributed to the advance in the market. In Holland the stock of Banca on Feb. 28 was 67,472 slabs, against 133,459 slabs same time last year, and the arrivals towards next sale were 60,325 slabs, against 51,106 slabs same time last year.

SPELTER continues in good demand, and prices remain firm. For parcels on the spot the quotation is now 22*l.* The stock in London on Feb. 28 was 1106 tons, being a decrease of 434 tons during the month.

TIN-PLATES.—There is still a very fair demand, and prices remain very firm.

STEEL.—A very good business has been done during the week, and the enquiry continues much more active.

QUICKSILVER.—A very moderate business only is now doing.

THE IRON TRADE—(Griffiths' Weekly Report).—The tone of the Iron Trade generally is quieter; no perceptible change has taken place in any other respect during the past week. Disappointment is frequently expressed by our correspondents in the Staffordshire districts at the pause which has taken place in the demand for some kinds of iron. For this slight reaction, however, there is no cause for surprise, or reason to expect that it will be more than temporary. The favourable anticipations of the prospects of the trade generally expressed at Christmas were founded on a knowledge of certain facts in respect to the requirements of Russia and the United States, which remain unchanged and unabated, and if the workmen continue steadily at their furnaces we still believe that the trade will improve to a considerable extent in the early months of the next quarter. The demand here remains unchanged, a good business doing in hoops, rails, and marked Staffordshire bars, most other sorts being slow in request. A contract for 1000 tons of rails for an English company was closed this week. These rails were required to be made to a particular specification, crystallised top and bottom, with good fibrous iron between. We believe the contract was taken by a well-known firm at Milton, in Yorkshire, who excel in this superior class of railway bar for the English market. The price of this small contract did not transpire.—75, Old Broad-street, March 5.

THE TIN TRADE.—Mr. L. Th. van Houten (Rotterdam, Feb. 26) writes—The Dutch Trading Company has this day fixed the spring sale of Banca and Billiton tin to take place in Amsterdam on April 1, when 49,500 slabs Banca and 700 slabs Billiton will be brought forward, in lots of 100 slabs. The directors further give notice that no tin will be brought in the market by them before the autumn sale this year. Also that till this period no Government sales of Banca tin will take place in the Dutch East Indies, and that no shipments of this metal will take place from the East Indies to China for Government account. The above engagement does not apply to tin belonging to other parties. In the beginning of the month our tin market opened firm at 67½ fls. for Banca with 14d. prompt, but the demand being rather limited, the price gradually gave way to 66½ fls. More orders coming in at this quotation, again caused an advance to 67½ fls. In the middle of the month telegraphic advices from India came to hand stating the production of Banca tin for the past year to be only about 60,000 peculs, or about 20,000 peculs less than the average for the last ten years. This caused a general demand, both for consumers and speculators, and a rapid advance followed. An rise of 4*l.* on English tin on the 26th inst., and the announcement that the Trading Company's spring sale, to be held on April 1 next, was only 50,200 slabs, at once created an enormous excitement in our market, and very little being offered, most holders absolutely refusing to sell, much higher prices were paid, the market closing at 76½ fls. Banca tin, ex next sale, and also April and May delivery, has also largely been dealt in on speculation, and from 67 to 77 fls. has been paid during this month. Billiton tin has also been in regular and good request, parcels with 14d. prompt were sold from 67 to 75½ fls., whilst 67 to 77 fls. has been paid for floating lots. A public sale of 5000 peculs Billiton tin was to have been held in Batavia in the beginning of the month, the result of which, however, is not yet known. The production of this tin increasing rapidly, bi-monthly sales of 6000 peculs (instead of 5000 peculs) will be held in Batavia in future, until further notice.

The position of Banca tin in Holland on Feb. 28, according to the official returns of the Dutch Trading Company, are—

		1869.		1868.		1867.
Import in February	.....Slabs	8,406	.....	6,719	.....	13,102
Deliveries in February	.....	11,101	.....	11,000	.....	6,493
Stock second-hand (old warrants).		67,472	.....	133,459	.....	114,076
Total stock	.....	127,797	.....	183,957	.....	200,407
Stock of Billiton	.....	3,023	.....	9,518	.....	14,886
Import in February	.....	5,035	.....	—	.....	—
Delivered and shipped in Feburary		2,800	.....	.....	.....	.....
Quotation Feb. 28 { Banca	.....	76½ fl.	.....	53 fl.	.....	51¾ fl.
Quotation Feb. 28 { Billiton	.....	75½	.....	52½	.....	51

These returns, compared with those of 1868, exhibit—An increase of the import for February of 54 tons; an increase of the deliveries for February of 3 tons; a decrease of the stock second-hand of 2112 tons; an increase of the unsold stock of 314 tons; a decrease of the total stock of 1798 tons; an advance of the quotation of Banca of 39*l.* 4s. per ton. The quantity of Banca tin now afloat for the Dutch Trading Company is 10,100 peculs, equal to 645 tons, against 11,000 peculs, equal to 705 tons, last year. We estimate the quantity of Billiton tin now afloat at 9461 peculs, equal to 605 tons.

The Government returns for the month of December are as follows:—

EXPORT OF TIN FROM HOLLAND.

	December.				Twelve months.			
	1868.	1867.	1866.		1868.	1867.	1866.	
Germany ..Tons	218	240	137	.....	2348	2417	2207	....
England	544	16	153	.....	1349	318	1249	....
Belgium ..... France	298	161	220	.....	2137	1647	2093	....
Hamburg	17	22	18	.....	244	297	331	....
United States....	37	20	—	.....	127	87	260	....
Other countries..	12	5	29	.....	364	369	461	....
Total..Tons	1126	464	557	.....	6569	5135	6601	....

Messrs. James and Shakspeare—The market has been in a state of wild excitement, and since Friday last it has been difficult to give an exact quotation. On that day the Banca sale was announced for April 1, the quantity being fixed at 49,500 slabs, and this being deemed moderate a speculative enquiry at once set in, and prices have advanced about 9s. per cwt. on all descriptions. The quotations for English were placed on Monday last at 125s. for common, and 130s. for refined, being respectively 9s. and 10s. per cwt, rise on those fixed on Jan. 8. Sales for the week are estimated at rather a large total, but owing to the fluctuations which must necessarily occur under such circumstances they have been made at irregular figures, spot parcels being sometimes quoted 1s. to 2s. higher than those for arrival. Quotations are now about 20 per cent. higher than on Jan. 1, and 50 per cent. higher than those on Jan. 1, 1868, with a probability of a further advance. The spring sale of Banca last year was almost identical in quantity with the one just announced, but only about 10,000 slabs then found buyers at 55 fls.=96s. laid down here, and prices fluctuated up to the autumn sale between that and 93s., no one in the meantime thinking the article worthy of attention.

THE COPPER TRADE.—Messrs. Turnbull and Watson (Liverpool, Feb. 27)—The transactions of the last fortnight have been limited to 500 tons regulus at 14s. 9d., and 225 tons bars at 72*l.* to 72*l.* 10s. To arrive, 900 tons ores at 14s. 7½d., with 85 tons Barilla at 15s. 1½d., 933 tons regulus at 14s. 9d., and 150 tons bars 73*l.* 5s. per ton. The large charters in the latter half of Dec. and the first fortnight of Jan. have checked business since the first week of this month, and bars are 1*l.* to 1*l.* 10s. lower; but it is noticeable that the sales are almost entirely from second hands, and for the most part the large holders are not pressing their stocks, with a view that these charters are due to somewhat exceptional circumstances, such as advantageous freights and an alteration in the export duty, and that the greater part of these shipments cannot leave the coast till quite the end of this quarter. Fine foreign is firmer. Sales since our last have been, on the spot here:—22d: 150 tons bars, to arrive, at 73*l.* 5s. per ton; 500 tons regulus, spot at Swansea, ex Tamaya, 14s. 9d. per unit.—24th: 900 tons ores, to arrive, per Carrizal, 14s. 7½d. per unit; 85 tons Barilla (Cobija), per Carrizal, 15s. 1½d. per unit; 550 tons regulus, to arrive, per Coronel, 14s. 9d. per unit.—25th: 380 tons regulus, to arrive, per Florence Luise, 14s. 9d. per unit; 225 tons bars, on spot, 72*l.* to 73*l.* 10s. per ton. Arrivals from the West Coast, South America, during the past fortnight:—Chilian, from Colon, 75 tons Barilla; Bolivar, from Colon, 125 tons Barilla; Ismyr, from Islay, 235 tons ores. Stocks of copper produce (Chilian and Bolivian)—

	Ores.		Regulus.		Bars.		Ingots.		Barilla.
Liverpool	1130	.....	670	.....	6500	.....	475	.....	103
Swansea	2320	.....	2589	.....	1140	.....	—	.....	214
Total	3450	.....	3259	.....	7640	.....	475	.....	317

Messrs. Vivian, Younger, and Bond—There has been more animation in West Coast produce, and a fair number of transactions have been effected. About 1200 tons of Chili bars were sold, the bulk of which were at 72*l.* cash, and 73*l.* arrival; also 225 tons of Lota ingots, reported at 74*l.* About 900 tons of ores of 18 per cent. to arrive in Liverpool fetched 14s. 7½d. per unit, whilst one cargo (400 tons) of regulus was done at 14s. 9d., and two cargoes (together 800 tons) at 14s. 6d. per unit. The market closes with a better tendency, and there are strong buyers of good brands of bar at 72*l.* cash, without any holders being found to meet the price. English raw and manufactured, also fine foreign, have been in small demand.

Messrs. James and Shakspeare:—The Swansea Ticketing for ore went off at an average of 14s. only, the chief portion being stuff of low produce; by Public Ticket in Liverpool, on same day, 900 tons Canadian averaged 14s. 4½d. per unit. Sales of regulus and ore (of good quality and percentage) have been made at 14s. 9d. and 14s. 6d. by private contract. Details of the Chili charters for the first half of January are to hand, a good portion of which prove to be, as was expected, for shipment up to and including the present month. The following will show that the produce of that country for the past three years has been almost stationary, the figures being the estimated amount of fine copper exported in ores, regulus, bars, and ingots:—

	1868.	1867.	1866.
Shipments Jan. 1 to Dec. 31 .....Tons	43,818	44,806	45,839
Chartered and loading on Dec. 31	9,266	5,396	6,318

The smallest charter advised during 1868 was 313 tons, the largest 5183 tons, the average quantity per mail being 1825 tons. In Chili bars and ingots about 1400 tons have changed hands on terms kept secret; on Thursday there was a disposition to purchase freely at 72*l.* cash and 73*l.* for arrival, but many buyers are waiting telegrams of the next mail, which news is expected to arrive about the 8th inst.; on the quantity then advised (for the last half of January) will depend the course prices will take. Australian and English are dull, and no transactions of importance recorded in either description. Stocks of Chili of all kinds (reduced to fine copper) in Liverpool, Swansea, and Havre, and of British and foreign copper in London, are estimated—

	1868.	1867.	1866.
March 1 .....Tons	21,450	19,400	18,910

but as it is in London alone that amounts are made up from returns issued by the various docks and wharves, whilst the quantity lying in the other ports is only surmised, we cannot vouch for the accuracy of the above, it being evident that no estimate so made, except when based on precise data, can possibly be correct.

The great and continued rise in tin has caused such excitement in the MINING SHARE MARKET that dealers have some difficulty in supplying stock, even at the advanced prices, in many mines, and a large business has been done in Great Wheal Vor, East Grenville, Wheal Grenville, West Frances, New Lovell, Wheal Uny, Drake Walls, Providence Mines, Chiverton Moor, Wheal Buller, West Seton, Tincroft, West Chiverton, Wheal Basset, South Condurrow, East Lovell, Cook's Kitchen, Stray Park, Prince of Wales, Wheal Chiverton, Wheal Crebor, Kitty (St. Agnes), Great Laxey, Great North Laxey, and a few other mines. Foreign gold mines have not been so extensively dealt in, the chief demand appearing to be for tin mines, though both copper and lead mines are fairly supported. The standard for copper ores at the weekly sale, on Thursday, rose 10s. per ton.

West Chiverton, 51 to 53; at the meeting the accounts showed a balance in hand of 15,113*l.* 2s. 2d., and a dividend of 2*l.* per share (6000*l.*) was declared, leaving 9113*l.* 2s. 2d. in hand. The report shows the various points in operation to be worth in the aggregate 630*l.* per fathom, and states that it continues to open out well, and at no former period looked better for continuance in depth. Bedford Consols, 12s. 6d. to 15s.; Bedford United, 35s. to 40s.; Botallack, 200 to 250; Carn Brea, 19 to 21; Chiverton Moor, 4½ to 5; Chontales Gold, 20s. to 25s. South Frances, 15 to 17½; at the meeting the accounts showed a loss on two months' working of 161*l.* 17s. 4d., and a balance against the company, after paying 500*l.* on account of law costs, 501*l.* 15s. 7d. Cook's Kitchen, 14 to 15; Drake Walls have been largely dealt in, at 20s. to 22s. 6d.; Dolcoath, 500 to 550. Don Pedro del Rey, 4⅜ to 4⅝; the advices are very favourable. East Basset, 5 to 7; East Caradon, 8⅜ to 8⅝; East Lovell, 9 to 10. East Grenville shares have advanced 4⅜ to 4⅝; the mine has improved. The 120 is worth ½ ton; the 100 stope, 15*l.* to 20*l.*; the 95 rise, 1 ton; the 75, 1½ to 2 tons, and improving fast; the 55, 2½ tons; the 55 winze, 22½ tons; the 55 rise, 2½ tons per fathom. Prince of Wales shares have kept steadily at 24s. to 26s.; the 65 east is being driven by the side of the lode; the 65 west is worth 12*l.* per fathom. East New Lovell, 6s. 6d. to 8s. 6d.; Frank Mills, 3⅜ to 3⅞; Frontino and Bolivia, 11s. 6d. to 13s. 6d.; Great Western, 2½ to 2⅝; Great Laxey, 19 to 20.

South Carn Brea, 5s. to 7s. 6d.; the rise in tin will, we are informed, enable this mine to be worked at a profit as soon as the water is in fork. For 12 months before the mine was stopped under the late

company, and when tin was at 42*l.* per ton, the average returns were 6¼ tons monthly; and this, at 70*l.* per ton, would yield a profit; but much larger returns are expected. Great North Laxey, 29s. to 31s.; Great Wheal Vor shares have advanced to 15½, 16¼; Herodsfoot, 43 to 45; Marke Valley, 8¾ to 9; Mineral Bottom, 3¼ to 3¾; New Lovell, 2¾ to 3; North Crofty, 22s. 6d. to 25s.; North Roskear, 35s. to 45s.; North Treskerby, 16s. 6d. to 17s. 6d.; Prosper United, 10s. to 15s.; Providence Mines shares have advanced to 38, 40; Redmoor, 4s. to 6s.; South Condurrow, 22s. 6d. to 25s.; South Great Work, 6s. 6d. to 7s. 6d.; St. Ives Consols, 17 to 20; Stray Park shares have advanced to 8, 9. Tincroft, 18 to 19; at the meeting a dividend of 10s. per per share was declared. Trumpet Consols, 17 to 20; West Caradon, 2¼ to 2⅜; West Drake Walls, 7s. 6d. to 10s.; West Frances shares advanced to 50, and leave off 49 to 51; West Great Work, 2¾ to 3; West Seton, 200 to 210; Wheal Basset, 70 to 75; Wheal Buller shares have advanced to 10, 12; Wheal Chiverton, 3¼ to 3⅜; Wheal Crebor shares have risen to 11s., 13s., and a good business done; Wheal Grenville shares have advanced to 47s. 6d., 50s., and in request; Wheal Kitty (St. Agnes), 4¼ to 4½; Wheal Margaret, 9 to 10; Wheal Mary Ann, 19 to 20; Wheal Seton, 70 to 75; Wheal Trelawny, 8 to 9; Wheal Uny, 4¼ to 4½. Wheal Agar, 1⅛ to 1¼; the agent's report, received yesterday, intimates that they are now near the East Pool lode, and the shareholders may soon be rewarded for their patience and outlay.

The market for Mining Shares on the Stock Exchange during the week has been dull, and prices are generally lower for foreign descriptions. Tin mine shares, in sympathy with the advance in tin, have advanced, and shares in lead mines are in active demand. The features of the market otherwise have been unimportant. In foreign descriptions Don Pedro, on a favourable telegram, advanced to 3⅜, 3⅞ prem. Del Reys, on the other hand, are flat, and have receded to 17¾, 18¼. Rossa Grande steady, at ½ to ⅝ prem. Taquaril Gold shares in demand, at 3s. to 3s. 6d. prem. Sao Vicente, 1-16th to 3-16th prem. Anglo-Brazilian, ¼ to ⅜ dis. Chontales have been very quiet, at 20s. to 22s. 6d. Port Phillips unchanged, at 1⅞ to 2. Anglo-Argentine, par to ⅛ prem.; General Brazilian, 3s. to 3s. 6d. prem. In British Mines Great Wheal Vors rose to 16, but close 15 to 15½. Prince of Wales, 24s. to 25s.; Drake Walls, 20s. to 22s. 6d. West Chiverton, steady at 51⅛ to 52½, ex div.; the lode in the bottom level is reported worth 40*l.* per fathom. Chiverton Moor, 4⅜ to 5; New Lovell, 2⅞ to 3⅛; Great Western, 2¼ to 2⅜; Chiverton, 3¼ to 3⅜; Van, 20 to 21; Glan Alun, 11s. to 13s.

IRISH MINE SHARE MARKET.—The general share market has enjoyed but little animation during the last few days, and most transactions were for deferred transfers, with drooping prices. Greater favour was bestowed on mining shares, which, although at this moment not very buoyant, have, in most instances, realised an advance on the quotations of a fortnight ago, except Cape Copper shares, which fell to-day 7s. 6d. on the last previous price, and close, without much enquiry, at 13*l.*, being a total fall of 17s. 6d. per share. Mining Company of Ireland shares, which also were more in demand, close rather heavy, at 11*l.* 12s. 6d. (7*l.* paid), being a reduction of about 5s. per share. Wicklow Copper shares, which we last quoted at 11*l.* 17s. 6d., have throughout been the favourites of the mining share market, have just been done at 12*l.* 2s. 6d. to 12*l.* 5s. (2*l.* 10s. paid), showing a rise of from 5s. to 7s. 6d. per share. Connorree shares have improved from 3s. 6d. to 4s., but Arklow Chemical Works (1*l.* paid) receded from 29s. 6d. to 28s., or 8s. per share premium.

The Carysfort Mine, lease, and plant were put up for public sale, on Wednesday last, at the Mart, in Tokenhouse-yard, London, by Messrs. Fox and Bousfield, auctioneers. But, notwithstanding the auctioneer's able efforts to recommend the mine, no bidding could be obtained, and the mine was bought in at the nominal sum of 750*l.* Though the descriptive report and particulars and condition of sale were of uncommon length, they failed to furnish the important information as to the company's tenure of the right to search for gold. The price which the lead ore sold from Ballyntemple generally commanded, and the value of the plant and buildings included in the sale, for 300*l.*, the amount named by Mr. Fox, the auctioneer, would be far under their real value. We mention these omissions as a caution to other companies which may at any time be under the necessity of selling their property.

At the Swansea Ticketing, on Tuesday, 1129 tons of ore were sold, realising 7666*l.* 19s. 6d. The particulars of the sale were—Average standard for 9 per cent. produce, 94*l.* 1s. 0d.; average produce, 9¼; average price per ton, 6*l.* 15s. 9d.; quantity of fine copper, 110 tons 1½ cwt. The following are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Jan. 26..	1245	£95 16 6	17⅝	£13 1 2	14s.10d.	£74 2 0
March 2	1129	94 1 0	9¾	6 15 9	13 9	68 15 0

Compared with the last sale, the decline has been in the standard 1*l.* 15s. 6d., and in the price per ton of ore about 3s. 6d. On March 23 there will be offered for sale 2025 tons of ore, from Union Mine (Tilt Cove), Cuba, the Cape, Knockmahon, Berehaven, Cawsand Vale, and elsewhere.

At Redruth Ticketing, on Thursday, 1069 tons of ore were sold, realising 4779*l.* 1s. The particulars of the sale were:—Average standard, 104*l.*; average produce, 7; average price per ton, 4*l.* 9s. 6d.; quantity of fine copper, 74 tons 14 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Feb. 4 ..	2432	£107 11 0	6⅜	£4 3 6	12s.11d.	£64 14 0
„ 11 ..	1529	106 4 0	6½	4 2 0	12 9	63 14 0
„ 18 ..	3102	113 2 0	5⅝	3 13 0	12 10	64 11 0
„ 25 ..	1478	100 7 0	7⅞	5 4 0	13 1½	65 12 0
March 4...	1069	104 0 0	7	4 9 6	12 9¼	64 0 0

Compared with last week's sale, the advance has been in the standard 10s., and in the price per ton of ore about 9d. Compared with the corresponding sale of last month, the decline has been in the standard 1*l.* 10s., and in the price per ton of ore about 2s.

The Standards of Tin Ores and Prices of Metal were advanced on Monday, and are now as follows:—Ores: Common, 111s.; superior common, 112s.; fine, 113s.; superior fine, 115s.—Metal: Common, 125s.; refined, 130s.

The following dividends have been declared during February:

Mines.	Per share.	Amount.
Minera	£5 0 0	£15,000 0 0
Mwyndy Iron	0 3 0	6,000 0 0
West Chiverton	2 0 0	6,000 0 0
Wheal Owles	52 10 0	4,200 0 0
Dolcoath	10 0 0	3,580 0 0
West Wheal Seton	6 0 0	2,400 0 0
Botallack	10 0 0	2,000 0 0
Herodsfoot	1 10 0	1,536 0 0
Frank Mills	0 4 0	1,000 0 0
East Darren	2 0 0	600 0 0
South Wheal Crofty	0 10 0	468 10 0
South Darren	0 1 6	450 0 0
Wheal Kitty (St. Agnes)	0 2 0	429 10 0
Cwmystwith	2 0 0	256 0 0
English and Australian	0 0 9	2,625 0 0
Total		£46,545 0 0

At Tincroft Mine meeting, on Monday, a dividend of 3000*l.* (10s. per share) was declared, and about 9*l.* was carried forward. The agent's report was of the usual gratifying character, and, should the present price for tin be maintained, it is hoped that the increased dividend of 10s. per share will be paid, and a considerable portion of the back liabilities cleared off during the year.

At Wheal Crelake meeting, on Feb. 24 (Mr. Richard Davey in the chair), the accounts for the four months ending November showed a credit balance of 336*l.* 0s. 5d.; and, including the December cost, the assets exceeded the liabilities by 1709*l.* 19s. The agents' report states that they expect to sell as much ore during the next as they had sold for the last four months. They are pleased to report that, notwithstanding the poverty of the ends, as much ore ground has been opened in the 28 as has been taken away for market from there, and from pitches from other levels.

At Spearne Moor Mine meeting, on Feb. 24, the accounts to end of December showed a profit of 142*l.* 18s. 9d. The purser (Mr. Samuel Higgs), writing to the shareholders, says—"I have pleasure in handing you a statement of accounts and the agents' report, which, coupled with the advance in the price of tin, is most satisfactory, and will enable me at the next account to hand you a dividend, with every prospect of continuing it for some time to come.

At the Lucy Phillips Mine adjourned meeting, on Monday (Mr. Webb in the chair), it was stated that a sufficient amount of debenture stock had not been subscribed to authorise the directors to proceed with the operations. The Chairman thought it probable that the resolution passed at the meeting (of which the present is an adjournment) empowering the board to proceed as soon as only 5000*l.* had been subscribed had induced some to withhold their subscriptions. A lengthened discussion ensued, which resulted in the appointment of a committee of shareholders to confer with the directors as to the most advisable course to pursue in the present financial condition of the company.

LEAD SETTS.—MR. W. PAYNTER, JUN., has FOR DISPOSAL several LEAD SETTS, all of which are situate in good LEAD PRODUCING DISTRICTS, and promise well for produce on a small outlay.
For further particulars, apply to Mr. W. PAYNTER, Jun., Wadebridge.

TO CAPITALISTS, COMPANIES, ETC.
A MINING ENGINEER, of LARGE EXPERIENCE, both in the COLLIERIES and MINE WORKS of SOUTH WALES, and in IRON MINES ABROAD, and now residing and holding an important mineral agency in Wales, has a part of his time unoccupied, and is OPEN to MAKE ARRANGEMENTS with any GENTLEMEN or COMPANY who may wish to employ him in the INSPECTION or SUPERINTENDENCE of MINING WORKS or PROPERTIES.
He is thoroughly acquainted with sound practical COAL and IRON MINING, and their corelative branches, and can produce the highest references as to respectability and competency. Reports, surveys, and valuations made, and railways, inclines, &c., planned and superintended.
Address—"Alpha, Ff. T." Pontypridd, Glamorganshire.

TO COLLIERY PROPRIETORS.—A Gentleman, having a good connection in the MIDLAND COUNTIES, with a perfect knowledge of the Coal Trade, WISHES for an ENGAGEMENT as TRAVELLING AGENT. First-class references and security.
Address, "A. H.," Post Office, Stamford.

TO MINE AGENTS, TIN DRESSERS, AND OTHERS.—WANTED, for the CHARLESTOWN TIN SMELTING WORKS, a RESIDENT AGENT, capable of undertaking management of works.
Apply, in first instance by letter, DAUBUZ and Co., Truro.

TO LEAD SMELTERS, &c.—WANTED, by the Advertiser, a SITUATION as ASSAYER. References on application.
Address, "Plumbum," General Post Office, Bath.

TIN MINING IN CORNWALL.—The Advertiser would be glad to CO-OPERATE with a FEW PARTIES in WORKING some TIN GROUND in one of the best tin producing districts in the county.
Full particulars on application to Capt. JOHN EDWARDS, St. Stephens, St. Austell, Cornwall.

WANTED,—A PERSON accustomed to the trade to SELL, in the Southern Districts, the COAL from a large SOUTH YORKSHIRE COLLIERY.
Apply to "G. W.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.
March 4th, 1869.

WANTED, by an experienced Man, a SITUATION as MANAGER of a LEAD, COPPER, or IRON MINE. No objection to go abroad. Testimonials on application.
Address, "A. J.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, by the OAK PITS COLLIERY COMPANY (LIMITED), Mold, North Wales, an UNDERGROUND STEWARD. None need apply but a thorough practical man, with good references, &c., stating age and salary, and where last employed.

WANTED,—A MACHINE for PRESSING FIRE-BRICKS.—Address, Mr. WALTON, Post Office, Tunbridge Wells.

PYRITES.—The Advertiser wishes to PURCHASE FOUR HUNDRED to FIVE HUNDRED TONS of PYRITES, to be delivered in lots of 50 to 100 tons weekly.
Apply, per letter, stating price for cash, to Box No. 2, Post Office, Birmingham.

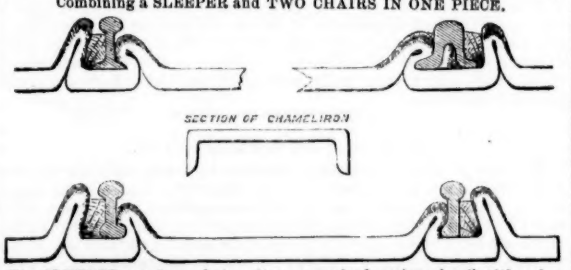
REDDING, DELIVERED AT BRISTOL STATION at 12s. a ton.
Address, W. GRIFFIN, Winford, Bristol.

ENGINEER'S AND IRON FOUNDRY BUSINESS.
TO BE DISPOSED OF, BY PRIVATE CONTRACT, the BUSINESS CONNECTION, PLANT, TOOLS, MACHINERY, PATTERNS, STOCK-IN-TRADE, &c., situated in the CENTRE of a TOWN in SOUTH WALES, of increasing importance, with rail into the works.
The concern is at present in full work, and business daily increasing; and good connection. Rent low.
Satisfactory reasons can be given by the present proprietor for retiring, and he is prepared to hand the business to a respectable successor on the most advantageous terms. Part of the purchase-money may remain.
Apply, by letter, to "H. R.," *Daily Leader* Office, Cardiff.

VALUABLE IRON WORKS FOR SALE.
TO BE SOLD, BY PRIVATE CONTRACT, VALUABLE IRON WORKS AND LAND, consisting of THREE wrought-iron cased SMELTING FURNACES; FIVE hot-air OVENS; cold blast tubes; gas tubes; lift for conveying materials to top of furnaces; cranes; engine-house, with water tank on top; blowing STEAM ENGINE, 84-horse power; SIX egg-shaped BOILERS; weighing machines; offices and workshops; manager's house and offices; five-horse stable and coach-house; railway connecting the works with the railway station; together with FOUR ACRES of FREEHOLD PASTURE LAND, on part of which the iron works and railway stand.
These iron works are situate in the county of Wilts, about a quarter of a mile from a station on the Great Western Railway, and having a canal running through the property. The works are all well built, and in substantial repair, and could, at a small outlay, be put in full working order in a short time.
A plentiful supply of ore can be had in the immediate vicinity of the works.
For further particulars, and to treat for the same, apply to S. BARROW, Esq., 24, Gresham-street, London; Messrs. LEWIS, MUNNS, NUNN, and LONGDEN, 8, Old Jewry, London; and of WILLIAM BRYAN WOOD, land agent, Chippenham, Wilts.

NORTH WALES—QUEEN'S FERRY, FLINT.
CLOSE TO THE RAILWAY.
TO BE SOLD OR LET, DESIRABLE FREEHOLD MANUFACTURING PREMISES, with ENGINE-POWER and LAND.—A plot of about one acre, with substantial factories, engine-house chimneys, stable, outbuildings, and sheds, suitable for any manufacturing purpose. ENGINE of most recent construction, and BOILER nearly new.
For further particulars, apply to JOHN TEMPLE, 32, Redcross-street, Liverpool.

IMPORTANT TO COLLIERY OWNERS, AND THE PROPRIETORS OF IRONSTONE, LEAD, AND COPPER MINES, TRAMWAYS, &c.
THE PATENT WROUGHT-IRON SLEEPER,
Combining a SLEEPER and TWO CHAIRS IN ONE PIECE.



The SLEEPER can be made to suit any required section of rail, either double-headed, flat-bottomed, or bridge, and the channel section of iron, of which the sleeper is made, can be manufactured of various breadths, and of weights varying from 6 lbs. to 20 lbs. per yard.

Among the advantages of the WROUGHT-IRON SLEEPER are—
1.—The way can be laid more quickly, and with less manual labour.
2.—The channel section of the iron sleeper beds itself more firmly in the ballast, with the most rigid accuracy of guage.
3.—The continued re-laying of rotten or broken wooden sleepers is no longer required.
4.—The iron sleeper is cheaper in the long run than the wooden, which is proved by the fact that on the Continent, where the cost of wood is considerably less than in England, the iron sleepers are universally used.
5.—All the losses or damages arising from the ordinary system, from the way getting out of guage, chairs or sleepers breaking, chair fastenings becoming loose and injuring the horses' feet, are avoided.

For further particulars, apply to the Sole Licensees,—
GEORGE HOPPER AND SON,
BRITANNIA IRONWORKS,
FENCE HOUSES, DURHAM,
IRON FOUNDERS, ENGINEERS, & IRON MANUFACTURERS,
WAGON AND TRUCK BUILDERS,
MANUFACTURERS OF CAST AND WROUGHT-IRON WHEELS, SPOKES, BOLTS AND NUTS, BAR, ANGLE, AND TEE-IRON, RAILS,
IRON SCREENS, CAGES, AND COAL TUBS.
SMITH WORK AND FORGINGS OF EVERY DESCRIPTION.

FOR SALE.
LOCOMOTIVE, PUMPING, AND WINDING ENGINES
By leading builders, and at greatly reduced prices;
STEAM CRANES, BOILERS, CASTINGS, WAGONS (on sale or hire);
RAILS, CHAIRS, POINTS and CROSSINGS, SLEEPERS, WIRE and HEMP ROPES, and every description of RAILWAY and MINING PLANT (new and secondhand).
Particulars and quotations on application to—
T. E. MINSHALL,
QUEEN STREET CHAMBERS, WREXHAM.

Town of Gothenburg Waterworks.
THE COMMISSIONERS for the CONSTRUCTION of the NEW WATERWORKS at GOTHENBURG, in SWEDEN, do hereby invite MANUFACTURERS, and others, to make TENDERS for SUPPLYING the requisite CAST-IRON PIPES, SLUICE VALVES, and FIRE COCKS.
Specifications, and all particulars, can be obtained at the SWEDISH AND NORWEGIAN CONSULATE-GENERAL, No. 2, Alderman's-walk, E.C.

In the Matter of the Companies Act, 1867,
AND IN THE
MATTER OF THE PORT PHILLIP AND COLONIAL GOLD MINING COMPANY (LIMITED AND REDUCED).
NOTICE IS HEREBY GIVEN, that a PETITION, presented to the Lord High Chancellor on the 17th day of December, 1868, for confirming a RESOLUTION REDUCING the CAPITAL of the above company from £500,000, divided into 100,000 shares of £5 each, to £200,000, divided into 100,000 shares of £2 each, is directed to be heard before the Vice-Chancellor, Sir JOHN STUART, on FRIDAY, the 12th day of March inst.
YOUNG, MAPLES, TEESDALE, AND NELSON
Of No. 6, Frederick's-place, Old Jewry, in the City of London
(Solicitors for the company).
Dated this 3d day of March, 1869.

NOUVELLE MONTAGNE COMPANY.—The GENERAL MEETING of the shareholders will be HELD at the Hotel d'Angleterre, Liége, on WEDNESDAY, the 7th April next, at One o'clock P.M.
The Director-General of the Company, V. BOUHY.

RHENISH PRUSSIA.
SEVERAL VALUABLE MINES FOR SALE,—LEAD, COPPER, BLENDE, and IRON. The Mining Laws of Prussia gives with the concession to work an absolute right of property in the mine for ever, subject only to a royalty of 2 per cent.
Apply to Mr. YOUNGHUSBAND, 6½, Wilhelm Strasse, Bonn-on-the-Rhine.

CHONTALES MINES, AND THEIR MANAGEMENT.—Owing to a press of matter, we are compelled to postpone until next week a letter of Mr. W. C. Paul's, in answer to Messrs. Truran and Bolt's communication in last week's Journal.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 26—	Bwich Consols	50	£14 14 6	Walker, Parker, & Co.
—	Bwadrain Consols	30	12 7 0	Sims, Willyams, & Co.
27—	Foxdale	100	24 14 0	ditto
—	Chiverton Moor	20	17 15 6	Treffry's Executors.
—	ditto	10	10 16 0	Sheldon, Bush, & Co.

[In last week's Journal, the parcel of 61 tons of silver-lead ore, sold from Wheal Trelawny, is stated to have realised 74*l.* per ton; but should have been only 7*l.* 4s. per ton.]

BLACK TIN.

Date.	Mines.	Tons. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
Feb. 19—	Penhale Vor	3 0 2 2	£66 0 0	£213 16 8	Bolitho.
—	ditto	0 6 1 19	44 0 0		
20—	Kitty (St Agnes)	13 6 0 25	£68 10 0	911 16 3	Bissoe Co.

COPPER ORES AND REGULUS.
Sampled Feb. 15 and 16, and sold at Liverpool March 2, by JAMES LEWIS and SON:—

Lot.	Description.	Tons.	Price per ton.	Purchasers.
1—	West Canada ore, ex Damascus	33	£12 7 6	James Radley.
2—	ditto ex Peruvian	33	12 6 6	Bibby, Sons, & Co.
3—	Italian ore, ex Venetian	9	9 10 0	St. Helen's Copper Co.
4—	ditto ex Istrian	30	24 5 6	Bibby, Sons, & Co.
5—	Connorree ore, ex True Bess	32	1 15 0	Newton, Keates, & Co.
6—	ditto ex ditto	48	1 15 3	ditto
7—	ditto ex Alert	45	1 11 0	James Radley.
8—	Connorree precipitate, ex ditto	10	18 18 0	Vivian and Sons.
9—	Spanish precipitate, ex Sundries	25	50 0 0	Newton, Keates, & Co. / St. Helen's Copper Co.
10—	ditto ditto	25	50 0 0	Bibby, Sons, & Co. / St. Helen's Copper Co.
11—	West Canada ore, ex Nestorian	34	12 2 6	Bibby, Sons, & Co.
12—	ditto ditto	15	16 17 6	St. Helen's Copper Co.
13—	ditto ex Hibernian	25	12 0 6	Bibby, Sons, & Co.
14—	ditto ditto	25	16 12 6	Sims, Willyams, & Co.
15—	ditto ditto	26	12 0 6	Newton, Keates, & Co.
16—	ditto ex Austrian	42	12 1 0	ditto
17—	Canadian regulus, ex ditto	22	20 7 6	Vivian and Sons.
18—	ditto ex Nestorian	32	27 1 6	Williams, Foster, & Co.
19—	ditto ex Hibernian	35	24 10 6	ditto
20—	ditto ex North American	44	21 19 0	Vivian and Sons.

COPPER ORES.
Sampled Feb. 10, and sold at Swansea March 2.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Union Mine	97	9¼	£6 0 0	Berehaven	71	8	£5 18 0
ditto	95	9⅛	5 18 6	Moonta	59	16⅜	11 13 6
ditto	93	9½	6 2 0	ditto	57	16½	11 14 0
ditto	91	9⅜	5 18 6	Concordia	17	18¾	12 17 0
ditto	85	9	5 16 6	ditto	1	19⅞	14 0 0
ditto	70	7⅞	5 5 0	ditto	3	5¼	3 10 0
ditto	38	8½	5 11 6	Pomona	1	38¼	28 17 0
ditto	16	21⅞	15 1 0	Copper Reg.	3	35½	25 17 0
Berehaven	91	9½	6 6 0	French Ore	40	6⅛	3 17 0
ditto	123	9	6 8 6	ditto	4	11⅜	7 8 0
ditto	74	8¼	5 16 0				

TOTAL PRODUCE.

Union Mine	585	£3566 12 6	Pomona	1	£ 28 17 0
Berehaven	359	2211 13 6	Copper Regulus	3	77 11 0
Moonta Ore	116	1355 14 6	French ore	44	183 12 0
Concordia	21	242 19 0			

COMPANIES BY WHOM THE ORES WERE PURCHASED:—

Names.	Tons.	Amount.
Copper Miners' Company	101⅙	£ 586 1 9
Freeman and Co.	130½	1294 17 3
P. Grenfell and Sons	94	962 7 0
Sims, Willyams, and Co.	36½	300 8 0
Vivian and Sons	235½	1394 4 0
Williams, Foster, and Co.	241½	1453 2 9
Mason and Elkington	145	848 2 0
Sweetland, Tuttle, and Co.	139⅙	797 18 9
Total	1129	£7666 19 6

Copper ores for sale at Swansea, March 23—Union Mine, Tilt Cove, 621—Cuba 500—Cape 216—Wallaroo 204—Knockmahon 190—Berehaven 140—Cawsand Vale 75—Spanish Ore 40—Tigrony Ore 30—Sludge 5—Regulus 4—Total, 2025 tons.

TOTALS AND AVERAGES.

21 cwts.	Produce.	Price.	Standard.
Whole sale 1129	9¼	£ 6 15 9	£94 1 0

COPPER ORES.
Sampled Feb. 17, and sold at Tabb's Hotel, Redruth, March 4.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
West Wheal Seton	91	£2 10 6	East Pool	9	£13 18 6
ditto	85	2 10 6	South Wheal Crofty	52	2 16 6
ditto	76	7 7 6	ditto	44	2 16 6
ditto	74	7 13 6	ditto	16	11 10 6
ditto	50	3 6 6	South Wheal Frances	46	6 14 0
ditto	49	6 4 0	ditto	32	4 4 0
ditto	47	6 17 6	Carn Camborne	40	1 13 0
ditto	46	4 16 0	ditto	20	4 6 0
ditto	45	3 12 6	Tincroft	48	3 2 0
East Pool	79	3 2 6	ditto	5	14 0 0
ditto	58	2 18 6	Tresavean	29	2 13 0
ditto	22	3 12 6	ditto	6	10 5 6

TOTAL PRODUCE.

West Seton	563	£2749 19 0	Carn Camborne	60	£ 152 0 0
East Pool	168	621 12 0	Tincroft	53	218 16 0
South Crofty	112	455 12 0	Tresavean	35	138 10 0
South Frances	78	442 12 0			

Average standard ..... £104 1 0 | Average produce 7
Average price per ton £4 9 6
Quantity of ore ..... 1069 tons | Quantity of fine copper .. 74 tons 4 cwts.
Amount of money £4779 1 0
LAST SALE.—Average standard ..... £100 7 0—Average produce 7⅞
Standard of corresponding sale last month, £107 11 0—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	193	£ 746 3 6
Freeman and Co.	67⅔	254 12 2
Grenfell and Sons	183⅔	1306 2 8
Sims, Willyams, and Co.	112⅙	757 4 5
Williams, Foster, and Co.	58	169 13 0
Mason and Elkington	218	610 3 0
Bankart and Sons	48	148 16 9
Copper Miners' Company	188¼	786 6 8
Total	1069	£4779 1 0

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next—Mines and parcels.—West Wheal Bassot 239—East Rosewarne 160—Bampfylde 100—Copper Hill 70—Wheal Buller 19—Bugleholo's Ore 12—North Grambler 7=607 tons.
Copper ores for sale at the Royal Hotel, Truro, on Thursday week—Mines and parcels.—Devon Great Consols 1506—Marke Valley 478—Wheal Crelake 228—East Caradon 221—Bedford United 198—West Maria and Fortescue 172—Okel Tor 150—Wheal Friendship 116—Prince of Wales 102—Kelly Bray 100—Gunnislake (Clitters) 85—Wheal Courtenay 25—Belstone 18.—Total, 3594 tons.

Just published, in one volume, Imperial quarto, containing 83 pages of engravings and 283 pages of letterpress, price £1 11s. 6d. in cloth, or £1 15s. strongly bound in half morocco,

IRON AND STEEL MANUFACTURE.

A SERIES OF PAPERS ON THE

MANUFACTURE AND PROPERTIES OF IRON AND STEEL;

WITH REPORTS ON IRON AND STEEL IN THE PARIS EXHIBITION OF 1867;

REVIEWS OF

THE STATE AND PROGRESS OF THE MANUFACTURE DURING THE YEARS 1867 AND 1868;

AND DESCRIPTIONS OF MANY OF THE

Principal Iron and Steel Works in Great Britain and on the Continent.

BY FERDINAND KOHN, C.E.

Reprinted from "Engineering;" revised and enlarged by the Author.

WILLIAM MACKENZIE, 22, PATERNOSTER ROW, LONDON, E.C.; AND 47, HOWARD STREET, GLASGOW; and SIMPKIN, MARSHALL, AND CO., LONDON.

NOW PUBLISHING, IN MONTHLY PARTS, BY M. AND M. W. LAMBERT, NEWCASTLE-ON-TYNE,

A PRACTICAL

TREATISE ON MINE ENGINEERING.

By G. C. GREENWELL, F.G.S., Colliery Viewer,

MEMBER OF THE NORTH OF ENGLAND INSTITUTE OF MINING ENGINEERS, &c., &c., &c.

SECOND EDITION.

The work has been entirely re-written, and contains numerous new illustrations, in addition to the original ones.

To be published in 16 monthly parts. Each part to contain 12 pages of letterpress, with four carefully lithographed illustrations printed in colours. Part I. on March 1, 1869. Each succeeding Part on the 1st of every month. Prospectus of the work may be had on application.

PRICE OF EACH PART, TWO SHILLINGS AND SIXPENCE.

New edition, corrected and enlarged, in 8vo., price 12s.,

THE PRACTICAL MINERS' GUIDE:

Comprising a SET OF TRIGONOMETRICAL TABLES, adapted to all the purposes of OBLIQUE or DIAGONAL, VERTICAL, HORIZONTAL, and TRAVERSE DIALLINGS; with their application to the Dial, Exercise of Drifts, Lodes, Slides, Levellings, Inaccessible Distances, Heights, &c.

By J. BUDGE.

London: LONGMANS, GREEN, and Co., Paternoster-row.

Now ready, price 6s. cloth,

ENGINEERING FACTS AND FIGURES FOR 1868.

[SIXTH YEAR OF PUBLICATION.]

An ANNUAL REGISTER of PROGRESS in MECHANICAL ENGINEERING and CONSTRUCTION, square 12mo, with Notices of Exhibits in the Havre International Exhibition, and numerous Wood Engravings.

A. FULLARTON and Co., London and Edinburgh.

A LARGE AMOUNT of MONEY being EXPENDED in ADVERTISING in WORTHLESS PUBLICATIONS, C. H. MAY will be HAPPY to AFFORD INFORMATION to ADVERTISERS in the SELECTION of the BEST and MOST INFLUENTIAL.

C. H. MAY'S GENERAL ADVERTISING OFFICES.

ESTABLISHED 1846.

ADVERTISEMENTS Inserted in all the London Provincial, Foreign, and Colonial Newspapers.

78, GRACECHURCH STREET, CITY, E.C.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

MANUFACTURE OF STEEL—"F. R." (Cardiff).—The best quality of steel other than crucible steel is probably that made by the Martin process. The pig is melted in a Siemens' furnace, wherein it is permitted to remain in fusion for half-an-hour, and brought to intense white heat; about an equal quantity of pieces of wrought-iron or steel—either shingled, puddle-balls, or scrap—is from time to time added, the metal being boiled and otherwise dealt with as usual. The great recommendation of the Martin process is that the quality of the steel made by it can be depended upon—it is more manageable than any of the quick processes which have yet been tried.

THE DIAMOND DRILL, AND COMPRESSED GUN-COTTON FOR BLASTING—"F. B." (Pettigo).—For information as to Leschot's diamond drill application should be made to Messrs. Appleby Brothers, Emerson-street, Southwark. With regard to the application of Prof. Abel's compressed gun-cotton, Messrs. Prentice, of Stowmarket, would, no doubt, give all the information required.

PRICE OF COPPER—"C. B." (Mincing-lane).—The "standard" is the price per ton of fine copper in the ore, without deducting returning charges. Practically, the returning charges vary with every produce. "C. B." must recollect that the figures given in the *Mining Journal* show the averages for the entire sale, and that these averages are calculated from the parcels, not the parcels from the averages. On Feb. 25 the relative value of 5, 6, 7, and 8 per cent. ore would have been about 3*l.* 2*s.*, 3*l.* 17*s.* 6*d.*, 4*l.* 11*s.*, and 5*l.* 5*s.* 6*d.*, more or less. The other ingredients in the ore are considered as well as the copper in calculating the value, which depends upon the quantity of copper which the smelters are likely to get out by the processes in actual use.

PRICE OF BISMUTH—"A Mine Agent" (Camborne).—The present price of metallic bismuth is about 12*l.* per cwt. The ore which occurs with copper in mines in the Camborne and Redruth districts is usually bismuthine, or sulphide of antimony; the pure sulphide contains rather more than 80 per cent. of metal, and fuses in the flame of a candle.

CHIVERTON MOOR—CHIVERTON.—I am pleased to find a decided alteration has been made in the management of Chiverton Moor Mine, by the entire removal of the old staff and appointment of competent and well-qualified agents for the carrying on future operations at the mine, and the removal of offices to London, where shareholders will be able to receive reliable information when required. I think it would also be advisable, and would have a beneficial effect on the prospects of Chiverton Mine, if it were to undergo a similar change at the next meeting, and the removal of offices to where the shares are principally held, as there is not a shareholder in Liskeard, nor a share held for a considerable time past. This desirable change would also have a tendency to establish a greater degree of confidence in the mine, and prove highly advantageous to the general body of shareholders.—A SHAREHOLDER.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, MARCH 6, 1869.

THE MINING ENGINEERS OF SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE.

With feelings of undissembled gratification the Journal has availed itself of every suitable opportunity for expressing its pleasure at any evidences of professional progress which have at any time been manifested amongst the men who have to direct the operations of the miner in the ancient coal basin of South Staffordshire. Of the very remote period at which that district began to develope its mineral treasures much has yet to be said, and when it has been said it will occasion surprise even to those who thought that they were not indifferently read on the subject. Testimony of an exceedingly interesting kind is in course of collection, and we have no doubt that those facilities will be afforded for its careful collation which will result in its being brought before the mining world in a manner to increase the attention which is invariably awakend when the "Black Country" is the topic. Meanwhile, let us again indulge in a faint pæon in praise of what is being done there. More than once we have pointed to a blemish in the otherwise excellent constitution of the society by which the mine agents and mining engineers were bringing up their neighbourhood to a higher professional level. We speak of a provision by which a member who should be shown to the directors to have been unjustly brought under even so mild a ban as that of a magistrate's court might, upon the decision of the directors, have his expenses defrayed by the Association. That regulation, we pointed out, had a Trades Union character about it, which anyone unfriendly to the organisation could handle with effect, and was incompatible with the leading purpose of the society. That purpose we take to be strictly educational. With everything outside this the combination should have nothing to do. We quite believe that in order to the regulation being carried into effect it would have to be shown to the fullest satisfaction of the directors that neither the terms of the Mines Inspection Act, nor those of the Special Rules of the district founded upon that Act, had in any way been violated, even unintentionally, before there would be any interposition; yet the alternative supposed it possible that the interposition of the law might be invoked without valid reason. Thereby a reflection was made to rest somewhere, and thus the disingenuousness of the Association was now and again questioned.

But any blur that may have hitherto disfigured, however slight, the fair escutcheon of the society is now removed. Information reached us of a meeting of the Association, held on Wednesday night, in Wolverhampton, at which it was resolved that the title of the society should be altered to that of "The South Staffordshire and East Worcestershire Institute of Mining Engineers," and that the Articles of Association be made to conform with the rules of the North of England Institute of Mining Engineers. This determination is in every way satisfactory, and the mining engineers of the Black Country have our congratulations upon this further evidence of their determination to keep themselves abreast of the times.

In writing (page 46 of present volume) upon the last annual meeting of the Association, we remarked upon the co-operation which institutions of longer standing and greater mark are ready to show the men of South Staffordshire. An instance of this was apparent in the hearty aid rendered to that meeting by the Institution of Civil Engineers. We now learn that the Northern Institute of Mining Engineers having become aware, without any formal intimation from the society, that they intend to visit the North, have officially notified that they have appointed a committee to take the necessary steps to receive them; and they assured them of the pleasure with which the intelligence of their determination to hold a meeting there was received. The Ironmasters' Association of Middlesborough have likewise communicated through their secretary that they hear with gratification that the South Staffordshire men are coming into that district; and they add that they shall experience pleasure in affording every means for making the visit a success. The Association resolved wisely when they determined to go together occasionally, out of their own neighbourhood, to see what was being done elsewhere; and the fraternal sentiments which they find expressed towards them by men of like sympathies and aims should have upon them the expansive effect which will issue in a determination on their part to extend the benefits of their association to as wide a sphere as the professional necessities of their district demand.

The South Staffordshire and East Worcestershire Institute of Mining Engineers must not only be a purely educational society; it must at the same time be an association whose advantages shall be open to every man throughout the district which it embraces, who is honestly desirous of making himself better qualified to direct the winning of its minerals with greater credit to himself and to the increased profit of the proprietors.

THE LAST TWO EXPLOSIONS.

The full particulars of the explosions in North Staffordshire and South Wales are now before us; and they fully bear out the expectation which the crude facts early communicated occasioned. Neither of the calamities can be rightly termed accidents. All the seven deceased have been killed—five by their own hand, and two by the wilfulness of these their fellows; whilst to the same cause is to be attributed all the physical suffering of the injured workpeople, the mental suffering and the poverty of the dependents of the deceased, and the destruction of the property of the owners of the collieries.

In the order of date, the first calamity was that in the Southern Principality, which occurred on Feb. 9, while that in North Staffordshire followed on the next day. They are the more impressive because, notwithstanding the awfulness of the great explosions in each of these localities which are still fresh in the memory, it is conclusive that the same absence of discipline patent then exists now in both the places; and that, therefore, owners' property and workmen's lives are in as imminent jeopardy now as they were when the Talk-o'-th'-Hill and the Ferndale explosions grieved the empire and desolated homes. Let proprietors take any precaution they may—all will be unavailing so long as some colliers display the recklessness of madmen, and the rest are so besottedly foolish that, rather than take the steps which will prevent the impending calamities, and at the same time punish the offenders, will allow their employers' property to be risked, and their own lives to be hazarded.

In North Staffordshire (where four men were killed) the Woodshutts Colliery Company have Mr. J. T. WOODHOUSE as their mining engineer—a man of whom Mr. WYNNE, the Government Inspector of the district, testified that in which every member of the profession concurs, when he said that he is "one of the ablest mining engineers in the country." Mr. WOODHOUSE came into authority at the Woodshutts Colliery a twelvemonth ago, and he at once doubled the amount of air passing through the mine, and altogether altered the arrangement of the working of the property. But what availed all this whilst the discipline of the pit was, in the words of the Government Inspector, so "awfully defective" that "even the underlooker did not appear to know that the rules imposed any duties on him; and the butty, who was next in authority, opened his lamp in a return air-course to give a light to a workman who wanted to smoke." What were the facts? Why, not only that the butty mentioned (named JOHN HAMILTON) would, to accommodate the smokers, take off the lamp-tops in the wagon-road, and give the men a light, but that although lamps only were allowed in the pit, yet that some men were emboldened to use naked lights in their working places. Evidence of this was afforded in the remnants of candle and clay which were found on three of the deceased, all of whom also had tobacco and pipes in their pockets. Nor need the men in every case go to the butty to remove the tops of their lamps before they could get a light. On the same three deceased lamp-keys were likewise found. It will be remembered that when the remains of the deceased at the greater calamity in that same Talke locality were searched numerous lamp-keys were found. These, it transpired, were made by the blacksmith of the colliery, out of the proprietors' materials and in his time, and sold to the men at 1d. a piece. Where the keys come from now it boots not to enquire. Henceforth underlooker and butty at the Woodshutts Colliery must be men who know their duty, and who do it. What steps the proprietors and the Inspector will take to teach those who have offended so flagitiously we shall, we presume, hear by-and-bye. But something more must be done. There must not only be plenty of air, and a judicious distribution of it, but it must also be next to impossible for men to open their lamps. Upon this we have a word or two below.

The explosion at the Fforchaman Colliery, Cwmaman, where the pit is sunk 200 yards to the Four and Six-feet veins, would not have happened if two of the three deceased had not, in opposition to warning from their fellow-workmen, used powder within 20 yards of a blower. Yet, with one exception, the survivors thought so little of the risk which was being run that they did not get out of the way, and no one of them complained to the superior officers. The blower had been exposed by some falls, and the men were aware that gas was accumulating. Powder was prohibited in the Four-feet, where they were working, and permission to use it had been refused by the fireman. Where the light with which the powder was ignited came from does not transpire. Two of the deceased were seen moving to the drilled hole, and they had only their lamps with them. We are driven to the conclusion that in Wales, too, as in North Staffordshire, there must be false keys in the possession of the colliers.

What the fastenings are that are used in Cwmaman Colliery we have no information; they can scarcely be so effective as are some now in use at certain of the pits of the Messrs. VIVIAN. We have information that those gentlemen, after the Ferndale calamity, took steps to provide their safety-lamps with locks constructed upon a principle which has acquired for it the fame of being a real security against tampering; but the result has been an outlay for the fastening which has nearly doubled the price of the lamp. We are not the advocates of the adoption by every proprietor of what Messrs. VIVIAN have done, but steps in North Staffordshire, and everywhere else, must be taken by which it shall be next to impossible for men to open their lamps clandestinely. Our columns have contained recently numerous hints upon this subject, not the least suggestive of which are those of most recent date. Further, we all know that some lamps are self-extinguishing. But, in addition, the penalties upon men who wilfully offend must be increased. Colliery owners have something to ask the Legislature for, as well as their operatives.

THE MANUFACTURE OF STEEL BY HEATON'S PROCESS.

Just now the manufacture of steel by the nitrate of soda process, as patented by Mr. HEATON, is exciting a great deal of interest, as shown by the numerous visits made to the works by scientific men, not only in England, but from all parts of the continent of Europe. It is, therefore, evident that in view of the production of a good quality of steel, at a considerably less cost than Bessemer or ordinary steel, consumers, both at home and abroad, are desirous of embracing such advantages as can be made apparent to them in that direction. We were, consequently, not surprised to hear that the orders in hand for the steel were almost in excess of the ability to supply. Such information we obtained whilst visiting the works at Langley Mill a few days since, when we noticed, amongst other persons engaged in viewing the machinery, and witnessing the converting process, a member of the House of Peers, and several gentlemen of high commercial standing. The Russian Government was represented on the occasion by Capt. A. KOLOKLLZOFF, Russian Royal Navy, and M. GABRIEL KAMINSKY, Conseiller d'Etat de S. M. l'Empereur de Russie. With regard to the works themselves at Langley Mill, it appears that they were only started about three years ago by Mr. HEATON, Mr. EATON, and a few other gentlemen, under the name of the Langley Mill Steel and Iron Works Company (Limited), with a view to the manufacture of iron only; but the depression in the iron trade, not only in Derbyshire, but in all parts of the kingdom, led Mr. HEATON to introduce his process for the conversion of the commonest qualities of "pig" into steel, and which he had had in contemplation some considerable time before. In the works there are four steam tilts—two of 10 cwts., one 5 cwts., and one 2¼ cwts.; one cupola, with two converting furnaces; two steam-hammers; five reheating furnaces; sixteen steel-melting furnaces, with rolling-mills. Having examined the machinery named, the entire process was gone through, from the lighting of the cupola for the melting of the pig to the converting into steel, and forming into a rail. The whole of the time occupied in so doing was barely one hour. The rail was then cut in small pieces, one of which was given to those present, the fine fibre of which gave evidence of the good quality of the steel. The ease, certainty, and rapidity with which the iron was converted were such as to fully satisfy the practical men present as to the invaluable character of the invention, whilst the extreme simplicity of the entire process was a recommendation which was fully recognised. Some alterations with regard to the convertor are about to be made, amongst others the clamps by which the pot with the soda is held at the bottom are to be replaced by a hydraulic pump, which will still further simplify the work, and so economise time and labour. Some alteration will also be made in the converting furnace, a handsome model of the new one having been made.

As before stated, although it is admitted that the process does not eliminate the whole of the phosphorus from the iron, yet the quantity left in is so infinitessimally small as not to be at all injurious. A sample analysed by Mr. MATTHIEU WILLIAMS, the analytical chemist of Sir JOHN BROWN'S works at Sheffield, was stated by him in the "Chemical News" of last week to contain as little as ·05 per cent., which is Swedish steel quality. But it is clear that the actual quality of Mr. HEATON'S product must depend upon the proper proportion of nitrate being used according to the composition of the pig-iron treated, and it required the aid of the analyst to determine the precise proportions which are calculated to produce in each case the best results. Even Mr. BESSEMER'S process cannot be advantageously conducted without such scientific aid, and it would seem that the nitrate process must be conducted at a still greater disadvantage in its absence, which we understand is simply due to the present transitional condition of the Langley Mill Company, who are about to hand over their works to a new company, which has acquired the patents. We may hope, therefore, shortly to see the process conducted under more advantageous conditions. Apart from the value of the steel, one of the many advantages of Mr. HEATON'S process is the cheapness of the necessary plant, and which to turn out a given quantity of steel would not require one-twelfth of the outlay which would be necessary to do the same amount of work by Mr. BESSEMER'S process. There is also the great difference in the price of the steel, and which for reasons hereafter given it is believed can be made at a much less cost than at present. The pig which we saw operated upon was made from a mixture of the Cleveland and Derbyshire ironstone, and when converted into steel, in addition to being made into rails, is formed into various descriptions of tools. Some of those were fully equal to any that could be found, drills in particular being exceptionally good. Some of those made at the works had been used for borings being made by the Butterley Company, and had perforated some of the hardest rock in the county, that known as "the old man," which contains numerous fossils, which, more than almost anything else, test the quality of the material of which the drill is composed. From enquiries made of some of the persons engaged in the borings to the coal measures, we were informed that Mr. HEATON'S drills were superior to those which they had been using, made from the Yorkshire steel, not by any means requiring such frequent sharpening, and so saving time, labour, and expense. Hammers, colliers' picks, and other tools are being largely manufactured, those produced having given such satisfaction as to cause large orders to be now given out for them. There is also a large demand for rails, and the business, even in its present state of transition, is now rapidly increasing, so that prepara-

tions are now being made for greatly extending the works, and putting down new machinery.

From those facts, and from information received from various quarters where the steel has been used, there is every prospect of Mr. HEATON'S process being a great success, and to no inconsiderable extent revolutionising the steel trade. To the makers of pig-iron in Cleveland, Lincolnshire, and Northamptonshire in particular the process is likely to be one of the greatest value, from the ease with which their brands can be converted into steel by machinery, the cost of putting down of which is comparatively trifling. The royalty, too, it is understood, will be by no means a heavy one, which is not often the case where patents of such a character are involved. Some idea of the value of those now being used in the manufacture of steel may be gathered from the fact, which we had on the best authority, that Sir JOHN BROWN and Co. (Limited), of Sheffield, paid upwards of 40,000*l.* last year as royalty for using Mr. BESSEMER'S patent, whilst Messrs. CAMMELL and Co., at their works at Penistone, alone for weeks together have turned out nearly 500 tons of steel by the same process.

The great attention now being paid to the subject, the desire shown to have the production of Mr. HEATON'S patent fully tested in every possible way, and the highly favourable reports of the practical and scientific authorities who have investigated it, all lead to the conviction that those interested in the production of good and cheap steel are fast arriving at the conclusion that the nitrate of soda process is the one which is destined to supersede other and more expensive systems. Its recognised value, and more general adoption, we believe, is a mere question of time, and we have very little doubt but we shall shortly see it in use at the principal centres of the iron trade in the kingdom.

One of the most important items in connection with the production of the steel at a moderate cost is the price at which nitrate of soda can be obtained. Peru, it appears, is the country in which it is principally found, but owing to the scarcity of fuel there the cost of manufacture, which is simply separating the salt from the earthy matter with which it is found, is very expensive, so also is the carriage to the coast, although the distance is only short. But that the soda can be amply obtained at a greatly reduced cost has been fully shown from authentic statements by Mr. WILLIAM LLOYD, the eminent civil engineer, who states that the prime cost to the importers in this country is but 8*l.* 12*s.* per ton under existing conditions, an amount which a small outlay of capital on increased facilities of transport, and improvements in manufacturing plant, would soon reduce to about 6*l.* 5*s.* per ton. It is clear, therefore, that the present famine price, caused by the destruction of the shipping engaged in the trade and the stocks ready for shipment, cannot long be maintained, and a price may be expected to rule considerably below the average rates of late years, which have been about 12*l.* per ton. About 1¼ cwt. per ton is the quantity used by Mr. HEATON to produce steel from pig-iron containing a small percentage of carbon, and the economy of the process is apparent from the fact that the cost of the item, when added to the cost of the low-priced pig, does not nearly reach the price of the best pig-iron.

We shall be glad to learn that Mr. HEATON'S process has been taken up by some of the large firms who take the lead in the trade, for it is evident that the process offers a grand field of promise for the application of capital and science.

PREVENTION OF BOILER EXPLOSIONS.

The Manchester Association for the Prevention of Steam-Boiler Explosions appears, from the report of the chief engineer, to have made satisfactory progress during 1868. The Association has now 1930 boilers under inspection, and the total value of the reserve fund on Dec. 31 was 15,797*l.* The committee again note with satisfaction the increase in the number of entire examinations, 1856 having been made during the past year. The fundamental principle adopted by this Association is that of a careful and searching periodical examination of the boilers of its members; and the increasing experience of its committee confirms their belief that were such a system of inspection as that carried out by this Association in universal application boiler explosions would soon become events of the past. No explosion has happened to any boiler under the care of the Association in the year, neither has any guaranteed boiler exploded. The verdicts given by coroners' juries in cases of death from boiler explosions still continue to be most unsatisfactory. Almost every explosion is attributed to shortness of water, through neglect of the attendants, and the verdict is usually accidental death. Special reference is made to an explosion whereby seven persons lost their lives, the particulars of which were given in the Association's report for August:—

"This explosion, it is contended, might have been prevented by competent inspection. The cause was the defective condition of the boiler, due to original malconstruction. The evidence given at the inquest was not at all consistent with the facts, and the usual verdict of accidental death was returned, the Coroner even adding that there had been no want of care, skill, or caution. The committee are of opinion that if, on the occurrence of deaths through the explosion of steam-boilers, the Coroner were to obtain the assistance of two independent engineers, who should each examine the exploded boiler, and report to him the cause, accompanying their reports with suitable drawings and models, and otherwise assist the Coroner in conducting his enquiry, that this would very much tend to elicit correct information, and to the return of verdicts in accordance with the facts of the case. They also think that it would be of advantage if the reports of these witnesses were printed, and supplied to each member of Parliament on issue, as well as deposited in the Patent Office, so as to be accessible to the public for inspection or purchase. One of the objects in the formation of this Association was to prevent Government interference with the boiler arrangements of the steam user, and it may be necessary here to remark that the plan of investigation into the cause of steam-boiler explosions herein suggested must not be confounded with a Government inspection of steam-boilers. There would be no intervention until explosion actually occurred, and then it would simply be by the present Coroner's Court, but by an improved mode of enquiry."

The Association extends its researches beyond the limits of the district in which it is located, and thus secures additional benefit to its own members by acquiring for them larger experience, and at the same time the entire kingdom derives advantage from its operations.

"During the past year 45 explosions have come to the knowledge of the Association's officers as having occurred to boilers in the United Kingdom not under its inspection, by which 57 lives have been sacrificed, and 60 other persons injured. The committee make a point of investigating the cause of these explosions as far as practicable, and with this view the scenes of 32 of those which occurred last year were personally visited by the officers of the Association, an examination of the boilers made, and particulars obtained. Details have been given from time to time in the reports of the Chief Engineer. This service involves the Association in a considerable amount of expense, but the committee believe that by investigating and publishing correct facts with regard to these sad events, they are rendering a public service, and doing much to prevent steam-boiler explosions generally. The somewhat unusual occurrence of the explosion of a 'feed-water heater,' or 'economiser,' which took place in October at the works of a firm who are not members of the Association, is a matter of considerable interest to steam users."

The explosion referred to was fully investigated by the chief engineer, and the result duly reported to the members. The committee conclude by congratulating the members on the continued prosperity of the Association, and by requesting their personal influence in order that its usefulness may be more widely extended.

The report of the chief engineer of the National Boiler Insurance Company, Mr. H. HILLER, for 1868, contains a large amount of useful information in connection with boiler accidents which have already occurred, and the means of preventing them in future. Water-gauges are frequently reported defective from various causes. The glass gauge is the most reliable fitting for this purpose, and for internally-fired boilers it is far superior to any other. These gauges are often found fixed too low, and are thus liable to lead to mistakes. All should be so fixed that the highest point of the flues may be covered by several inches of water when it is only just in sight in the glass. Where two gauges are attached they act as check on each other. Many gauges were found choked up and inoperative through neglect of the attendants; and the taps of some were so leaky that they could not be tested without danger of scalding. That no excuse may exist for neglect, the taps of the gauges should be so arranged that a direct opening for blowing through or cleaning may be had without the removal of any stop-screws, which are liable to be broken off and to other injury. It is also a good plan to affix a short piece of pipe at each opening inside the boiler, to prevent the choking of the passages. The safe and economical working of boilers depends so much on the way in which they are managed by those in charge that a few notes thereon will be of service. The advantages of regularity and steadiness in the working of all boilers cannot be over-estimated. Economy of fuel and increased production of steam always result therefrom, whilst the liability to defects of any kind is materially reduced. The fires should never be allowed to burn low, but the rate of combustion should be regulated by the damper.

The dangerous practice of throwing open the fire-doors to reduce the pressure should never be resorted to, as it is not only attended with great waste of heat, but positive danger, especially with externally-fired boilers, owing to the sudden cooling and contraction of the highly heated plates. Uniformity of water level and of steam pressure is indispensable. Thick fires are more economical than thin ones; the fuel on the bars may be from 8 in. to 12 in. thick, according to the size of the furnaces; and by adopting the "coking" system of firing (pushing the fire towards the back end of the furnace, and throwing on the fresh fuel at the front), smoke may generally be easily prevented by the due admission of air through suitable perforations in the furnace door. Where boilers are over-worked, or the fuel used is of such quality that the "coking" system of firing may be inapplicable, they may be fired in the ordinary way, the fuel being spread evenly over the whole grate surface. In such cases the admission of air at the door may be found insufficient to altogether prevent smoke, and necessitate the insertion of a perforated plate under the bridge, a second bridge being built a short distance behind the ordinary one, with an inverted brick bridge between the two. It may be remarked, too, that fire-grates are often unnecessarily long; comparatively short grates are generally preferable, and more economical. The report fully exemplifies the usefulness of the systematic inspection of boilers, as by that means defects of a dangerous character are discovered and reported, useful practical suggestions being, when necessary, made to the owners, with the view of preventing their recurrence.

HEAVY PUMPS WORKING IN A SLOPE OF 1 IN 4.—At Bryngwyn Colliery, owned by Mr. W. S. CARTWRIGHT, of Newport, a 70-in. direct-acting pumping-engine, working a 20-in. plunger, has been recently started, and is giving excellent results. As these pumps are working at the low angle of about 14° from the horizon, a few particulars about them will interest engineers. The lift is in one length of 870 ft. on the slope. The rods are pitch pine, 14 in. square, and remarkable steadiness in their working has been secured, while all undue wearing of the under side of the plunger stuffing-box is effectually prevented. Owing to the increased length of the column, the resistance due to friction is greater than if the pumps worked in a vertical shaft; but this is fully compensated for by the advantage afforded for a larger ratio of expansion in virtue of the increased momentum from the additional length and weight of pump-rods put in motion each stroke, and the work was specially designed by Mr. MORGAN MORGANS, of Bristol, to secure this advantage. It is important to find that pumps can be made to answer well in this manner, and it was once proposed to sink a shaft at this colliery purposely to avoid the disadvantages which were thought to be inseparable from slope pumps, but the chief of which have been, in this case, entirely overcome by Mr. MORGANS, whose experience in draining mines is well known.

STEAM-ENGINES AND MACHINERY.—The returns as to the exports of machinery and steam-engines from the United Kingdom for the first 11 months of last year are sufficient to enable us to form a pretty good estimate as to the year's business. We sent last year fewer steam-engines to France, Egypt, British India, and Australia. Russia, however, came to the rescue, and took our steam-engines to the value of 200,537*l.* in the 11 months ending Nov. 30 last year, as compared with 66,522*l.* in the corresponding 11 months of 1867. The falling off in the demand for railway engines in British India rather seriously prejudiced the general result of last year's operations; to Nov. 30, however, we sent abroad steam-engines to the value of 1,598,705*l.*, as compared with 1,829,578*l.* in the corresponding eleven months of 1867, and 1,611,442*l.* in the corresponding 11 months of 1866. In the year 1858 we only exported steam-engines to the value of 1,097,278*l.*, so that the general course of this branch of our exports is onwards. The exports of general machinery showed very little variation, upon the whole, last year, but the case would have been otherwise but for the augmented demand from Russia.

GOLD MINING IN VICTORIA.—We have been favoured by Mr. R. BROUGH SMYTH, the Secretary for Mines in the colony of Victoria, Australia, with the official reports of the mining surveyors and registrars for the quarter ending Sept. 30, 1868. The total quantities of gold got respectively from alluviums and quartz reefs were—from alluviums, 256,796 ozs. 14 dwts.; and from quartz, 150,689 ozs. 12 dwts., together 407,486 ozs. 6 dwts.; against 279,349 ozs. 18 dwts. from alluviums, and 145,163 ozs. 1 dwt. from quartz, together 424,512 ozs. 19 dwts. in the June quarter; and 307,125 ozs. 16 dwts. from alluviums, and 134,936 ozs. 8 dwts. from quartz, together 442,062 ozs. 4 dwts., in the March quarter; which gives us the total for the first nine months of last year of 843,272 ozs. 8 dwts. from alluviums, and 430,789 ozs. 1 dwt. from quartz: together, 1,274,061 ozs. 9 dwts. The quantities of gold (the produce of the colony) exported, according to the returns furnished by order of the Commissioners of Trade and Customs, was 532,066 ozs. 10 dwts. in the March quarter, 385,792 ozs. 1 dwt. in the June quarter, and 330,846 ozs. 7 dwts. in the September quarter=1,248,704 ozs. 18 dwts. for the nine months.

GEOLOGICAL SOCIETY—THE WOLLASTON GOLD MEDAL.—The value of the contributions to geological knowledge through the researches of Mr. H. C. SORBY, F.R.S., has been publicly recognised by the Geological Society of London awarding him the Wollaston Gold Medal, in presenting which the President (Prof. Huxley) stated that in awarding it the Council desired to testify their appreciation of the value which they, in common with all other geologists, attach to Mr. Sorby's laborious investigations, continued now for a period of more than 18 years. The President referred especially to Mr. Sorby's researches into the structure of rocks and minerals, and of meteorites; to his explanation of the phenomenon of slaty cleavage, now universally adopted, and fully in accordance with the results obtained by physical investigators who have approached the same question from a very different side. The President then presented the balance of the proceeds of the Wollaston Donation Fund to Mr. W. Carruthers, F.G.S., of the British Museum, in aid of his researches in fossil botany, remarking, especially with regard to those directed towards the structure of fossil fruits, that these are so valuable that Mr. Carruthers might justly look upon the award as an expression of gratitude for his labours. At the same time, the President observed that scientific gratitude was of the kind which had been defined as a lively sense of favours to come.

EXCAVATING THE INTERIOR OF, AND FOR SINKING, IRON CYLINDERS.—Mr. John Milroy, Assoc. Inst. C.E., read a paper descriptive of his new apparatus at the Institution of Civil Engineers on Tuesday. It was believed that for the purpose of sinking cylinders the great desideratum hitherto had been some method of excavating the earth from the interior without at the same time having to take out the water, and to keep it out during the operations. This object seemed to the author to have been attained by a machine of his invention, which was used in the construction of the bridge over the River Clyde, for the Glasgow Union Railway, to which Mr. Fowler and Mr. Blair were the engineers. The excavating apparatus, commonly called the "Excavator," was thus described:—It consisted of a horizontal frame of iron, with an outside rim 9 in. in height, to which radiated, like the spokes of a wheel, T-irons from a small cast-iron ring in the centre. To the bottom of the outside rim were hinged eight heavy iron spades, which, when drawn in, fitted closely, with their points pressing against the inner ring. The hinges of spades were so constructed as to prevent them from turning back beyond the perpendicular. The whole apparatus was very strongly made, and it formed when closed a nearly water-tight tray. When the machine was descending the spades were allowed to hang vertically, and they were forced into the ground by the aid of two chains, fastened to the top of upright arms on opposite sides of the excavator, then passed down the cylinder, under, a pulley, up between two leaders, and over another pulley, the end of each chain being wound round the large axle of a capstan or drum on the landing stage. These chains were calculated when tightened to keep the machine down whilst the spades were being drawn in through the ground and up to the frame. This was effected by a second set of chains, all of equal length, and each fastened at one end to the inside of a spade, and at the other to the end of a main chain, by which the machine was raised to the surface, with the earth it contained, by means of a steam hoist. In order to enable an opinion to be formed of the capabilities of the excavator, it was mentioned that the progress of the excavation, and the corresponding subsidence of the cylinder, reached from about 12 to 20 feet per day of 10 hours, inclusive of the time employed in adding fresh lengths of cylinder, putting on weights, &c. When there had been little interruption for any of these purposes, it had amounted to 25 feet in 10 hours, and then the average quantity of sand brought up at each lift was 2 cubic feet, and the total quantity during the day was found by measurement to be 70 cubic yards. Twelve men in all were employed—one engineer, one stocker, six men working the drums, three attending to the loading and discharging of the excavator, and one man wheeling away the materials. In conclusion, the following advantages were claimed for this apparatus:—First, that it was perfectly independent of water, which was allowed to remain in the cylinder until the excavation was completed; secondly, that it could be used, and was equally effective, at any depth, without sensible difference in the cost of working; thirdly, that its rate both of sinking and excavating was higher than had yet been attained by any other method; and lastly, that it is not liable to get out of order, whilst its action was always in the same perpendicular line, and the expense attending its working was comparatively trifling, as skilled workmen were not required.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,
Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. THOMAS GIBB, of Jarrow-on-Tyne, Durham, has specified an invention relating to the treatment of metallic ores and compounds. In treating ores, or compounds containing sulphides, a furnace is employed for the purpose of calcination, having one end maintained at a considerable higher temperature than the other. The ore containing sulphur is placed on the hotter part of the bed, near the fire-bridge, and there calcined until the sulphur is expelled, or until the ore is "dead." It is then moved towards the flue, or cooler end of the furnace, and a fresh charge of ore placed on the hot bed. The gases produced in calcining the freshly-charged ore pass over that previously charged, and change the oxides of copper, or other metal contained in the latter, into sulphate. Should this effect not be completely obtained by the sulphurous acid gas produced in calcining the ore, sulphurous acid gas otherwise produced may be passed through the furnace. It will be generally found more convenient to effect the transference of the ore by several stages from the hotter to the cooler end of the furnace. Ores which contain no sulphides, or in which the sulphides have been calcined, are exposed in a furnace, maintained at a low red heat to a current of mixed atmospheric air and sulphurous acid gas, until the metal to be removed is changed into sulphate.

Mr. JAMES BOWRON, of Forest Hall, near Newcastle-on-Tyne, and Mr. GEORGE LUNGE, of South Shields, Durham, have obtained a joint patent for an invention relating to the manufacture of iron and steel. This invention consists in mixing fluoride of calcium, the same being obtained artificially, or in the form of native fluor-spar, or the mineral known as "cryolite," either in a state of fine division, or otherwise with the materials used in blast-furnaces for the purpose of removing either wholly or in part the phosphorus contained in the pig-iron to be obtained therefrom. The fluoride of calcium should be used in the proportion of from 2 to 20 times that of the phosphorus contained in the materials under treatment, according to the quantity of the latter, and the degree of purity desired to produce. The invention further consists in using fluoride of calcium or cryolite in puddling and other furnaces as a "fettling," to aid in the manufacture of wrought-iron and steel, by removing phosphorus contained therein.

THE NEW METHODS OF MANUFACTURING STEEL.

A paper on this important subject was read on Thursday evening at the Inventors' Institute by Dr. B. H. Paul. After describing the characteristics of steel, as compared with ordinary malleable iron and cast-iron, the author pointed out that all the known methods of producing steel were referrable to one or other of three classes—1. Carburation of malleable iron; 2, decarburation of cast-iron; and 3, the direct production of steel from iron ore by one operation. He showed, in describing the several new methods, that they involved the same principles as the older methods, and that the novelties which constituted the importance of these, like other improvements, consisted chiefly in the mode of applying those principles, suggested and rendered possible by a more thorough scientific knowledge of the subject to which they referred. Thus in one of the oldest methods of producing steel with the Styrian forge the principle is precisely the same as that of the Bessemer method—burning out the surplus carbon of cast-iron by atmospheric air. But while only a few hundredweight of iron could be worked at one time with the forge, and the product was obtained in small pasty lumps, requiring much subsequent labour to bring it into a compact state, the Bessemer converter would turn out at once from 5 to 10 tons of pure melted steel, which could be run into moulds as an ingot, a cannon, or any other form desired, this difference being entirely owing to the different mode of applying the principle involved. In speaking of the influence exercised upon the quality of steel by various impurities originating from the ore or the fuel used in smelting, the author dwelt upon the defective state of chemical knowledge in reference to this subject, and urged the necessity of scientific investigation of a nature commensurate with its importance, bearing on a manufacture which was first developed on a large scale in this kingdom, and in that respect has been, until recently, almost peculiarly British. Lastly, in treating of the relative economical features of various new methods, he pointed out how much depended, not merely on the fact that steel could be produced by any particular method, but even still more on the conditions under which such a result was attainable, such as the expenditure of labour and consumption of fuel, the quality and quantity of material capable of being operated upon, and the condition in which the product is obtained.

The Chairman (Dr. T. L. Phipson) remarked that the subject of steel-making was one which had such an important bearing upon the industry of the country that it could not fail to prove of intense interest to inventors generally, and in Dr. Paul's paper they had the advantage of obtaining the experience of one who had given the question, perhaps, more attention than any other English chemist.—Mr. Noyes, jun., in reply to a question, stated that in the Heaton process the quantity of nitrate of soda used depended upon the nature of the iron ore operated upon; but, taking the average kinds with which they had hitherto dealt, the proportion would be about 2 cwts. of nitrate to the ton of steel produced.—Mr. G. F. Ansell remarked that the description of the escaping fumes given by Dr. Miller led him to think that they were due to the presence of water in the nitrates, and he would like to know whether advantage would not result from drying the nitrate before it was placed in the converter.—Dr. Paul presumed that the nitrate would be dried before it was used, as it was well known to contain, in the commercial state, a large amount of hygroscopic moisture.—Mr. Noyes said that Mr. Heaton preferred the nitrates to be damp, as in that state they gave better results than otherwise. He quite agreed with Dr. Paul that many erroneous opinions had existed in connection with the manufacture and composition of steel, and manufacturers had, doubtless, much to learn upon the subject. For himself, he would be glad to know the effect produced by nitrogen upon steel, that being a question upon which he believed authorities were not unanimous.—The Chairman did not believe that the presence of nitrogen had any influence upon the quality of steel. The question had been largely discussed by French metallurgists, and Mr. Frémy had used his utmost endeavours to prove its value; but the proportions found were so extremely minute, and so variable, that it was generally concluded that it had no influence upon the value of the steel. This conclusion, however, did not detract from the value of the suggestion to use nitrate of soda in the manufacture of steel, for there would be a tendency to the formation of cyanides, in which the carbon would exist in a form most favourable for the production of the steel.—The thanks of the Institute were voted to Dr. Paul for his useful and instructive paper.

At the close of the discussion models were exhibited by American inventors, who had just arrived in this country. Mr. Barry showed an improved field-piece, with revolving breech chambers. It was pointed out that the improvement consisted in making the chambers revolve upon a vertical instead of horizontal axis, and in the introduction of a peculiarly-formed recess for completing the connection between the breech-piece and the barrel before each discharge, and thus rendering the escape of any of the gases impossible. The speed of firing will be very great, and since with a six-chambered breech each chamber would remain untouched until after two other charges had been fired (when it would be sponged and reloaded in the ordinary manner), the loading and discharging would proceed with great regularity, and ample time would be allowed for the chambers to cool, advantages not possessed in combination by muzzle-loaders, breech-loaders, or cylindrical breech chambers of the usual form. The other model was a water velocipede, invented by Mr. Walker, which con-

sisted of a canoe with paddles, operated by treadles very conveniently placed for giving the largest amount of power with the least possible labour. The meeting was very well attended.

REPORT FROM SCOTLAND.

MARCH 3.—After the key we had given to the course of prices in this market, the readers of the *Mining Journal* will readily understand the tumble-down which has taken place in quotations since last week, holders having all this week become pushing sellers, with a professed anxiety to immediately realise. In this condition trade was done yesterday in our Pig-Iron Market as low as 53s. 9½d. cash, closing sellers 1d. higher. It is difficult to say to what this action may be attributed, but it is known to the trade here that while our shipments have increased about 12,000 tons this year, and the imports from Middlesborough have largely decreased in the same period, stocks of Scotch iron in store have been augmented 80,370 tons, and now amounts to 316,192 tons, with warrants in circulation for 305,700 tons, no inconsiderable portion of which is held by parties in Liverpool and London for speculative purposes. During the week the foreign and coastwise shipments of pigs reached 11,280 tons, against 8580 tons in the corresponding week last year, with the average prices in the two years as under:—

	Jan.	Feb.
1869	55s. 2d.	55s. 1½d.
1868	52s. 3d.	52s. 4½d.

The furnaces in blast are now 122, as compared with 107 in the same week of 1868, the former figures, including those which have been re-lighted this year, but excluding the two at Omoa, which have just been blown out. To-day there was great pressure to realise, and about 20,000 tons must have been disposed of at from 53s. 10½d. to 53s. 7½d. cash, and 54s. 1½d. to 53s. 8d. a month; closing sellers, 53s. 8d. cash, and 53s. 11d. a month, buyers 1d. per ton less. Makers' iron is also dull. Gartsherrie has been reduced to-day 2s. a ton; Eglington brands, 1s. 6d. No. 1, g.m.b., 54s. 6d.; No. 3. 51s. 9d. Gartsherrie, 61s.; Coltness, 60s. 6d.; Calder, 58s.; all Eglinton brands, 53s. 6d.—market depressed. Makers of Finished Iron report their trade variously this week, especially for bars; but we find them all pretty well filled up with work for the month, without, however, any advance in prices. There are good large orders on hand for shipment to Canada and the North of Europe, with an odd cargo for India. Makers of plates and angle iron are very busy, and hold firmly for an advance, angle iron being quoted 7*l.* 2s. 6d. to 7*l.* 5s., and as much as 8*l.* 10s. is asked for ordinary ship-plates. Ironfounders are, also, doing a good trade, and pipe founders have orders for months to come.

Coals are exceptionally unremunerative, and the spring demand has not yet imparted life to the trade. The game of "cross-purposes," which the miners delight to play with the masters, is also a source of embarrassment and annoyance, and irritates, while it does good to neither party. With coals f.o.b. in the Clyde at 5s. 3s. to 7s. a ton, there need not be much debate as to the inability of the masters to pay 4s. 6d. a day for working them. There is to be a Conference of miners here to-morrow, but it is likely to end as so many Conferences have done before—in an illiterate squabble, solving nothing. McDonald is suffering from bronchitis, at Holytown, and cannot be present to prescribe for the disease. He has, however, sent them an epistle in advance, informing them that to his mind the following presents itself as the only remedy:—Let every man who desires things improved pay down 1s. for the purpose of agitating the country to show the sense of their position. Let that agitation be begun when the great mass have paid. Their want of honesty in leaving all to a few to settle can only be continued to the injury of all. . . . . Let all note, the disease of the miner is at this moment general. No local application can cure it. The ulcer of overproduction must be excised—removed entirely—or social death must ensue. Here is the panacea—1s. for agitation, and the excision of over-production, and the miner walks direct into paradise. We fear Mr. McDonald has not yet discovered the "Philosopher's Stone."

With regard to the remarks of your correspondent, "T. N.," as to the appointment of Prof. Macquorn Rankine to the chair of mining engineering, about to be reorganised in this city, there can only be one opinion as to the Professor's fitness. But is it a chair Mr. Rankine would condescend to accept, and would he be disposed to descend into the minutiæ of the subjects, so as to make it plain to working miners as well as to those holding the higher positions about mines? Perhaps one with less precise scientific information, and more familiar with the class of students he would be required to instruct, would prove the more efficient teacher of the two; but of this we do not speak dogmatically. If Prof. Rankine undertakes the chair, with the conditions the originators attach to it, we have little doubt but that he will honourably implement all his engagements.

The Clyde shipyards are now full of life, and new engagements are being entered into every week. On Saturday, Messrs. Napier launched from their premises, at Govan, a twin screw iron armour-clad frigate, for Her Majesty's Government, named the Audacious. The length of this powerful-looking frigate, between perpendiculars, is 280 feet; extreme breadth, 54 feet; depth moulded, 36 feet; burthen, 3774 19-94th tons O.M., and she is to be fitted with twin screw engines of 800-horse power collectively. Messrs. Napier have also in hand a sister ship to the Audacious, to be named the Invincible, which is rapidly approaching completion, and will be launched shortly. In addition to these ships, the firm have been selected by the Admiralty to build the Hotspur, a large and powerful armour-clad ram, which will be constructed on a principle new in this country, though adopted some time ago in connection with the navy of France. The chief feature of her design is the formation of a fixed tower or turret, strongly armour-plated, to protect the armament, which at present is intended to consist of one immense gun, to be trained or moved round from port to port of the turret by a strong revolving turn-table. This vessel will be 235 feet in length, 50 feet in breadth, and of 2637 tons burthen, and her armour-plates amidships will be no less than 11 inches in thickness.

REPORT FROM NORTHUMBERLAND AND DURHAM.

MARCH 4.—The Coal Trade still presents a gloomy aspect, and the reasons for the general depression felt appear to be difficult to arrive at. No doubt the extraordinary summer and the present winter may be classed among the causes, but the opinion most generally prevalent appears to be that over production is the real cause. This, however, can hardly be borne out by facts, as the quantity put out during the past year in this district has been very much reduced, and yet there are large stocks on hand, and we understand that in Yorkshire, too, the output has likewise been much reduced. The main causes for the unusual depression are, no doubt, to be found in the general commercial stagnation, and also in the extremely warm summer and winter; but it must not be supposed that the present winter is yet over; on the contrary, the last few days have been the most inclement yet experienced. Strong north and north-westerly gales have been experienced, and driving showers of hail and snow, and with which the ground is now covered to a considerable thickness. The North Sea, on Tuesday night, was visited by a heavy gale and a tremendous sea, but, fortunately, few casualties have been yet reported.

Machine ventilation continues to make rapid progress here, and there can be little doubt that these machines will now to a great extent supersede the old ventilating furnace, especially in shafts of moderate depth. This can excite no surprise, as in pits of inconsiderable depth the efficiency and economy of the machine, as compared with the furnace, is not disputed. A large fan, on the Guibal principle, is nearly ready for starting at the Framwellgate Moor Colliery, near Durham, and as the shaft where the fan is to supersede the furnace there is of moderate depth, and also a working shaft, it is apparent that great advantages are to be got by the use of the machine, as the furnace smoke in a working shaft is a great nuisance and inconvenience.

The Iron Trade continues as last reported, and the same quotations rule—Pig-iron, No. 1, 49s.; No. 3, 46s.; No. 4, 45s., f.o.b. in the Tees. At the meeting on Tuesday it was stated that Swan, Coates, and Co., of Cargo Fleet, are about to erect two furnaces, much larger than those already blown; and the fact that such progress towards establishing Courts of Conciliation had been so far advanced at Darlington on the previous day was the subject of congratulation The shipbuilding and foundry branches of the trade continue good, and, on the whole, the prospect is fair for the trade during the present year. The yearly "bindings" at the collieries are now approaching, and, as might naturally be expected, owing to the state of the trade, a reduction in the price paid will take place. It is not known what the generally adopted reduction will be, but some are to be held on Saturday (that is, the yearly bindings), and the reduction to be proposed to all hands is 10 per cent.; it is also probable that this amount will be pretty general, nor is it at all likely that the men will seriously object to such a course when the general state of the trade is taken into consideration.

The report of Bolckow, Vaughan, and Co. (Limited), to be presented on the 17th inst., at Middlesborough, shows an available total of 104,052*l.*, including a previous balance of 1114*l.*, and recommends a dividend at the rate of 10 per cent. per annum (which will absorb 75,000*l.*), and the appropriation of 25,000*l.* to reserve, leaving 4052*l.* to be carried forward.

NORTHERN INSTITUTE OF MINING ENGINEERS.—A general meeting of members will be held on Saturday, when a full assembly may be expected, as, with other business, the important discussion is to be taken on the report of the Tail-Rope Committee, and also on the paper of Mr. Steavenson, "On Lemielle's Ventilating Machine." Both subjects are of the greatest importance in connection with coal mining, and a most interesting discussion may be expected. Mr. Boyd's paper "On Riveting" will also be open for discussion. A number of members and graduates are also to be elected. The number of members in connection with this flourishing Institute is increasing most rapidly, and the room where the meetings now take place is much too small. It is earnestly to be hoped that no time will be lost in getting the new building erected, in which ample provision will be made for the meetings of the members, and also for other purposes. The Institution of Mechanical Engineers of Birmingham will hold their annual meeting at Newcastle on Aug. 3, 4, 5, and 6, and a Committee of the Northern Mining Institute has been appointed to receive them; and the annual meeting of the North of England Institute of Mining Engineers will take place on Saturday, August 7.

MEETING OF IRONMASTERS AND WORKMEN AT DARLINGTON.—This most important meeting was held on Monday, at Darlington. It has been noticed lately, in this letter, that the ironworkers were showing signs of uneasiness consequent on the little improvement which had taken place in the iron trade, and that the men already contemplated securing, if possible, a rise in wages. This meeting, therefore, is the result of this feeling on the part of the men. The masters held a meeting on Saturday week, in Newcastle, when it was decided to request the men to send delegates from the different works to meet them in Darlington. Mr. David Dale, president of the Iron Manufacturers' Association, was called to the chair. One of the delegates, Mr. Edward Wood, occupied the vice-chair. Messrs. Jones and Kane, as representing the masters and men, were admitted as secretaries.

The Chairman, in opening the proceedings, remarked that there were two questions to be considered, the first being that of wages, and the other having reference to the establishment of a conciliation committee or board, by which questions which arose between masters and men might be amicably managed, and those periodical suspensions of trade be avoided. He hoped the questions coming before them that day would be approached in a spirit of moderation and fairness on both sides.

Mr. James Crow said they considered they were entitled to an increase of wages. The last reduction was made, they were informed, through a depression of trade, and they were told that when an improvement took place they should be again advanced. At the present time the prices of iron were advancing in the market, and as the trade had considerably improved they thought they were entitled to an advance in their prices.—Mr. Alexander Gunn supported the remarks of the last speaker, and others followed on the same side.

Mr. Williams said the masters were not in a position to advance the rate of wages at present, as the price of iron had not increased sufficiently. The masters have not yet got the prices quoted, as they are working up orders at the old rates. They expected that, perhaps, by May next, if the trade improved, and shipments to the Baltic had begun, then they might be able to advance the rate.

Mr. Hopkins, and nearly all the other masters, addressed the meeting, the general statement being that the works had been carried on for the last three years without any profit being obtained. In plates 2s. 6d. extra was all the advance obtained since the last reduction, and bars have been reduced since that period 5s. per ton.

It was ultimately resolved unanimously that a committee, consisting of five masters and five men, should be appointed to draw up rules for the establishment of Courts of Arbitration and Conciliation for the North of England Iron Trade, and the meeting adjourned until Monday next, for the purpose of receiving and considering the report.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MARCH 4.—The now dreary and monotonous tale about the Iron Trade can only be repeated. We are in the third month of 1869, yet no improvement can be reported, and the quarter which opened with so much hope is closing with no satisfaction, and no great expectation. Short time is almost universal at the iron works of South Staffordshire, and, though orders are given out for local consumption and for home buyers, the foreign demand is very scanty. It is rather puzzling to find that, in spite of the depression of trade here, the exports for January last were considerably in excess of what they were in the first month of last year, and 50 per cent. in excess of January, 1867. No doubt the means of production have greatly increased, and it is to be feared that, relatively, South Staffordshire is losing her share in the production of iron.

The general committee of the fund raised to meet the needs of those who suffered from the accident at Talke, in North Staffordshire, have decided to set apart 3000*l.* for the establishment of a Permanent Fund for the Relief of the Distress of Miners, and they have decided to form a society after the pattern of the Northumberland and Durham Miners' Relief Fund, with a view to provide for the widows and orphans of members accidentally killed in and about coal and ironstone mines, and to assist those who may be disabled. A very influential committee has been appointed, with the rector of Stoke (the Rev. Sir Lovelace T. Stomer) at its head, and with Mr. T. Wynne, the Government Inspector of Mines, as one of its members, to draw up rules, and so on. The decision of the committee seems a wise one. Any help given should operate as a means of developing providence amongst the men—should act as the Divine Providence is described as acting, to "help those who help themselves." By using this fund, and the contributions of masters as an addition to the subscriptions of the workmen, the good it will do will be immensely extended.

The enquiry before Mr. Booth, the coroner, as to the explosion at the Woodshutts Colliery, near Talke, by which four men were killed, has revealed an amount of recklessness on the part of the men employed—the deceased and others—most painful to contemplate. The seam in which they worked was a fiery one, and they had locked lamps; the use of powder, smoking, or opening lamps were all strictly prohibited. Yet, of the four men who were killed, two were found with the tops of their lamps screwed off, three had lamp keys in their pockets and had pipes or tobacco, and at least one had been using a candle! It was further proved that smoking was commonly practised, and that on one occasion the chartermaster, Hamilton, opened his lamp in a return air-way, to enable one of the miners to light his pipe. Mr. Woodhouse, the mining engineer, a man of very superior ability, said:

"The men at the colliery were perfectly aware of the danger they ran, but did not seem to care. They were very intelligent, and knew what ought to be done, if they only cared to do it. Smoking in a pit, whether in a place where lamps or candles were used, was monstrous, and ought not to be permitted, even about the colliery at all."

The jury appended to their verdict of "Accidental Death" special censure on the chartermaster, Hamilton, and urged the necessity of preventing smoking. The question is, How? If men are so obstinately determined to gratify a vicious habit at the risk of life, it seems almost hopeless to prevent them. At any rate, we ought to have more frequent cases of punishment for such practices.

Amongst the men who keep old England's banner flying must be reckoned such as the late Mr. Edward Perry, japan manufacturer, who died on Monday, at Tettenhall, near Wolverhampton, at the age of 69. He has raised himself by shrewdness, determination, and industry, to a high position. At a critical period in the history of the town he was elected mayor, and served the office for two years. He overcame the difficulties, and retired amidst a general chorus of applause. He was the first President, and largely the founder of the Wolverhampton Chamber of Commerce, and in many ways did good service to the town, where he found work and good wages for a large number of hands. He was not a C.B. or an LL.D.; but amongst those captains of industry whom a great writer marks out for distinction, the name of Edward Perry has an unanswerable claim to be enrolled.

REPORT FROM MONMOUTH AND SOUTH WALES.

MARCH 4.—The rail mills at the leading establishments continue fully employed in the execution of orders from Russia, British India, Peru, Porto Caballos, British America, New York, and New Orleans; and the ironmasters of the district are shipping large quantities of rails to the before-mentioned places, and should the present fine weather continue the exports during the present month will unquestionably show a considerable increase over many of the previous months during the past two years, while the reports which have this week come to hand from some of the works make the gratifying announcement that there are sufficient orders on the books to keep the mills fairly employed throughout the year. The steadily increasing demand for rails enables makers to adhere firmly to list prices, and, as there is a prospect of the demand increasing, prices will probably advance before the close of the spring season. Makers in this district have this year been fortunate in securing several large contracts, and, as there is something like animation being evinced in the market, makers are now sanguine of the trade speedily attaining the prosperous position it held previous to the depression which set in in 1867. Home buyers have not as yet entered into many heavy engagements, and it is evident that they will, for some little time to come, purchase with a considerable degree of caution. Fresh engagements have this week been entered into with New York buyers for early delivery in the spring; and, although the proposed convention for the settlement of the Alabama claims will be refused by the United States, it is not supposed that it will in any way interfere with commercial transactions, but that the present activity will continue to prevail for some months to come. The shipbrokers at the local ports have just been offered a contract to convey 30,000 tons of rails to Russia during the season just commenced, and, as there was a contract lately in the market for that quantity of rails for Russian lines, it is believed that the makers in this district have been successful in securing it. There are but few enquiries for plates, but an improvement in this branch of the trade is looked forward to. There is a steadily increasing demand for tin bars, and prices have a tendency to advance. The tinplate mills are fully employed, and, as there are orders coming plentifully to hand, prices are on the advance.

The Steam Coal Trade is now in a fair way to recover its former position of activity and vigour, the favourable change in the weather having enabled a large fleet of vessels to arrive at the local ports, where numerous orders have been delayed by the late gales and the scarcity of tonnage. Large quantities of coal are now being shipped to the mail packet stations, but in transactions with the East it cannot be said that anything like activity prevails. The settlement of affairs between Turkey and Greece has caused a falling off in the demand from some of the Mediterranean ports, and has been the means of causing a reduction in shipping rates. In anticipation of a speedy increase in the demand, rather heavy shipments are being made to the South of France and the Levant, and to the continental markets an average quantity is being sent. There is a better demand for house coals than for several weeks past.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

MARCH 4.—The Iron Trade continues very quiet at nearly all the works in Derbyshire, and there does not appear any prospect of a material alteration for the better. Still there is a large output of pig, there being no diminution in the number of furnaces in blast. On the Erewash Valley line the extensive works are in about the same condition as previously noticed, the only exception being at Langley Mill, where there is considerable activity in the production of steel by Mr. Heaton's process. The colliers in the same locality are still on short time, and the trade generally is very dull. The tonnage going to London is by no means large for the season; but, on the contrary, considering that the county supplies the metropolis with more than two-fifths of the entire quantity going there by railway, is much less than is usual at this season of the year. This, to some slight extent, is attributable to the mild character of the weather, but more to the depressed state of several important trades, including shipbuilding, in which large quantities of coal are consumed. To Birmingham, the Midland Counties, and the West of England, the demand for house coal is by no means active, whilst in gas qualities there is about an average trade being done. The works on the new line of railway from Sheffield to Chesterfield are being rapidly pushed forward, and there is every appearance that the line will be open for traffic at the time fixed upon, in July, although it is not expected that the stations will be ready by that time. By it a vast amount of mineral traffic will be brought on to the main line of the Midland Railway, so that the competition for the southern trade promises to be much keener than it is at present.

With regard to the trade of the district, we may say that there is a very good demand for rails, and most qualities of manufactured iron. In coal there is very little doing, and for the season the business doing in it was scarcely ever worse. The Great Northern Railway Company have not yet announced any reduction in the traffic rate to London, and until that is done no change for the better in that direction is anticipated.

In the South Yorkshire district there is just now a great deal of commotion amongst the mining community, and which promises to increase more than otherwise. At three of the largest firms between Sheffield and Barnsley the men are now out. At the Manor and Tinsley Park Collieries, belonging to Mr. Huntsman, the men are out on strike, for reasons already given; they are maintained at a cost of about 250*l.* weekly to the Miners' Association. Last week the colliers at the pits of Messrs. Newton, Chambers, and Co., at Chapeltown and Thorncliff, had 28 days' notice given to them to leave their employment, and also to give up such houses as were held under the firm. On visiting the locality we were unable to obtain any accurate information as to the cause for the discharge of such a very large body of men. It is, however, said, erroneously we believe, that a change in partnership has something to do with the matter, although the men assert and believe that a reduction of wages is intended. The firm employ a great number of men, the concern being the largest in South Yorkshire, so that any lengthened interruption to work will be severely felt by a vast number of persons.

The difficulty experienced in rolling thick armour-plates of considerable width appears to have been successfully overcome at the Atlas Works, Sheffield, by the simple process of rolling the pile crossways as well as lengthways until it becomes of the required dimensions; the great difficulty of heating uniformly very wide masses of metal being thus abolished. Mr. Ellis, the managing director of the Atlas Works, expressed himself strongly as to the great difficulty of heating plates of any considerable width, before the Gibraltar Shield Committee in January of last year; and Lieut. English, of the Royal Engineers, subsequently hit upon the method above mentioned. In a letter, dated the 11th of March, 1868, published in the addenda to the report of that Committee, he describes the plan, and mentions his having suggested it on the 3d of March to the managing director of the Atlas Works. By the report of the first successful experiment, made on the 19th inst., it appears that the process has since been patented by Mr. Ellis.

NEW COLLIERY WORKINGS IN LANCASHIRE.

The first sod for the opening of the Towneley Demesne Colliery was cut on Thursday, Feb. 25, by Miss Towneley, of Towneley. The site is at the fire-clay works of Messrs. Brooks and Pickup, close to the Burnley and Todmorden branch of the Lancashire and Yorkshire Railway, and a short distance from the Towneley station. Miss Towneley was presented on the occasion with a spade and tub or wagon, which were most beautiful and valuable specimens of workmanship. The mouth of the spade was of silver, and bore the following inscription:—"Presented to Miss Towneley on the occasion of her cutting the first sod for the opening of the Towneley Demesne Colliery, Feb. 25, 1869." The handle was of old oak. The tub, also, was of old oak, silver mounted, with four silver wheels. It bore the same inscription as the spade, and on the opposite side Miss Towneley's arms in silver. The presents were furnished by Mr. Hall, silversmith, Manchester. The new pit is called "The Alice Pit," in compliment to Miss Towneley. There was a large concourse of spectators to witness the ceremony. Miss Towneley, Col. Towneley, Mr. Brooks, Mr. Pickup, and the invited guests having arrived in procession at the site, headed by the band of the 17th (Burnley) L.R.V.,

Mr. GREENWELL, President of the Geological Society, Manchester, explained a section of the Arley and Mountain Mines, to be won by the Alice Pit. He observed that they were standing nearly on that part where the coal strata of the Burnley coal field were the deepest below the surface. It was assumed that the depth of the Arley Mine would be about 300 yards; the Mountain Mines might be expected to be lying at a depth of from 200 to 250 yards, making a total depth of about 550 yards. Near the site of the proposed new winning was a large upcast fault of about 300 yards, throwing up the Mountain Mines to the west to within 100 yards of the surface, whereas on the eastern side of the fault they are expected to be found at a depth of from 500 to 550 yards. The Arley Mine, which belonged to the middle series of the Lancashire coal field, was in this district of excellent quality as household coal. The mines, under the generic name of Mountain Mines, were of suitable quality for manufacturing and coke-making purposes. The large fault referred to running through the district, and near the site of the new winning, would enable the Mountain Mines to be worked in connection with the Arley.

Miss Towneley then proceeded to cut the sod, which was put into the tub, run along a strip of rail, tipped on to the railway, and brought back. Mr. Brooks planted a staff on the site, bearing the inscription, "The Alice Pit," and the ceremony was completed, amidst the cheers of the spectators.

The guests then adjourned to the mould room of the works, a portion of which had been curtained off and tastefully decorated with flags, banners, streamers, specimens of tilery, and coal from the Towneley Colliery, a short distance above, and in the occupation of the same firm. A splendid lunch awaited them, supplied by Mr. Adami, of the Albion Hotel, Manchester. Amongst the company sitting down were Col. and Miss Towneley, Mdlle. Briand, Mr. Counsellor (private secretary to Col. Towneley), Rev. Canon Parker, Rev. F. Everard, Rev. T. J. Flanagan, Rev. H. McGrath, Rev. Edwards Taylor (Moreton Hall), Mr. and Mrs. Eastwood (Thorneyholme), Col. and Mrs. Every-Clayton, Major Whitle (Halton Hall, Lancaster), Captain and the Misses Fenton, Mr. Greenwell, Mr. Dickinson (Government Inspector of Mines), Mr. Milne (Chairman of Quarter Sessions, Manchester) and Mrs. Milne, Major Dugdale, Mr. and Mrs. Brooks, Mr.

and Mrs. Pickup, Capt. Creeke, Capt. Handsley, Mr. Sandy, Mr. Storey, &c. Mr. Brooks presided, and Mr. Eastwood occupied the vice-chair. After the toast of "The Queen" had been proposed and duly honoured,

Mr. BROOKS remarked that, after the blessing of God, the best encouragement in their undertakings was woman's smiles, and they were favoured that day with the presence and approval of the ladies. He felt exceedingly obliged to Miss Towneley for the interest she had taken in the proceedings, and he sincerely hoped that the generous and amiable disposition she had evinced would revert in many blessings to herself. He gave the health of Miss Towneley, which was received with three cheers.

Colonel TOWNELEY responded, thanking Mr. Brooks for proposing the health of his daughter, and the company for the way in which the toast had been received. He greatly rejoiced that one so dear to him had the honour of cutting the first sod of the Towneley Demesne Colliery, not only because it would be a source of profit to Mr. Brooks and himself, but also remunerative to a large body of men who would be employed therein. He gave them—"Success to the pit opened that morning," coupled with the name of Mr. Brooks.—The toast was drunk with cheers.

Mr. BROOKS acknowledged the toast. He trusted those present would not conclude from the proceedings that he thought more highly of the undertaking than he was warranted, because there were undertakings on a much larger scale in the neighbourhood. But he had been informed that in the North it was customary to have such gatherings. He hoped their kind wishes would be realised, not only in the success of the Alice Pit, but in the happiness and prosperity of all concerned.

Mr. DICKINSON, having been called upon to propose "Success to the Coal Trade," said the cutting of the sod—the commencement of a new colliery—for the purpose of winning the coal below the surface was an important undertaking. In a factory or workshop the building was soon finished, but although it might be fitted with machinery and run for generations, yet the building, for the most part, remained the same. It was not so with a colliery; from the first turn of the earth, the whole work was in a constant state of change. They were told in the best of books that the earth should not be moved without certain consequences, and experience showed that the record was true. The falls of earth and materials in the mine, gas, water, and other things, were instances that it was not always to be dealt with with impunity. Such a work, therefore, as a new colliery required well-arranged plans for the commencement, and unity of purpose, to bring about a successful issue. The character of the owners and engineers in this case was a sufficient guarantee that the plans would have been well matured. They had also unity of purpose—they had the lord of the soil, the leading owner, Mr. Brooks, supported by his active partner, Mr. Pickup, and the miners who had the colliery to work with their sinewy arms and horny hands, all unitedly taking part in the proceedings. It might be some solace to them in their work to remember that the first stroke was made by the hands of youth and beauty and gentle blood. (Cheers). They would trust that a good seam of coal would be found, and that the enterprise would be richly rewarded.—The toast was drunk, and—

Mr. GREENWELL responded in the place of Mr. John Taylor, of Newcastle, who was prevented by indisposition from attending. He observed that the toast of "Success to the Coal Trade" meant success to England, for they all knew that the success of England depended more upon its coal than upon anything else in the soil. Having referred briefly to the gloomy anticipations of some with respect to the coal supply, with which he did not sympathise, he remarked that the undertaking of that day was not only for the individual benefit of the owners, but every ton obtained from the new colliery would add to the wealth of England. Trade at present was in a bad state. Some people took the opportunity when trade was good of launching out with their capital, but this was not the wisest course. The wisest course was to make their investments when trade was bad, and they were then ready to take advantage of it when good. He was sorry they had not had a finer day for the opening, but there was a North Country proverb, from which they might derive encouragement, "Like to rain, like to riches."

The other toasts were "Colonel Towneley and the Towneley Family," "Mr. and Mrs. Brooks, long life, health, and prosperity to them and family."

The fine band of the 17th Lancashire Rifle Volunteers played during luncheon. The decorations inside and out, where numerous flags were flying, were by Mr. Whaite, Bridge-street, Manchester.

THE LOCK-OUT OF SOUTH YORKSHIRE COLLIERS.—The lock-out of the large body of colliers who, up to Wednesday night, were employed at the Denaby Main, the deepest pit in Yorkshire, is exciting a great deal of interest throughout the colliery districts of the West Riding, and the struggle appears likely to be a severe one. The immediate cause of the lock-out is that the men on being engaged agreed not to belong to any Union whatever. For some reasons, however, a large number of the men joined the South Yorkshire Miners' Association, and in consequence had notice served upon them to leave. On Thursday afternoon a numerous meeting of the men was held at Mexboro', for the purpose of considering the steps which should be taken under the circumstances. A chairman having been appointed, Mr. J. Normansell, secretary of the Miners' Association, then addressed the large assemblage. He said they had met for the purpose of contending for the rights of labour and the liberty of action and of speech. He considered that as men they were fully entitled to say whether they should belong to any and whatever association they pleased; but such, it was evident, was not the opinion of some of their employers. He could say that it was not without the best reasons that the men agreed to join the association, and it was certainly not with the intention of striking, which the association generally did all it could to prevent. It appeared that Mr. Pope wished to work the Denaby Colliery the same as he did those with which he was connected in the Normanton district, and for that purpose he was applying to Paul Roper, of Bilston, to send men down from Staffordshire, and so destroy the liberty of the late workmen. Roper offered 6s. a day and board and lodging to those who were willing to go down into Yorkshire. No doubt men would be obtained, but they would do the association and those who were out more good than otherwise if they were not interfered with or molested, and he had every confidence in the coalowners of South Yorkshire that they would not assist Mr. Pope in his opposition to his workmen. He said that on Saturday last he saw Mr. Mundella, the member for Sheffield, who went with him to Mr. Baines. That gentleman received him most courteously, and on his informing him of the large sums which the Association had paid to widows and orphans, the sick and the lame, the benevolent objects of the Union appeared to strike him forcibly, and to impress him with a much more favourable opinion of the Union than he had previously held, and made arrangements for his seeing Mr. Pope in Leeds. But Mr. Pope desired to treat with the men singly, and on his own terms. The lock-out would cost the Association 150*l.* a week more than they were paying at present, which altogether would be 400*l.* weekly. But then they had more than 7000 members at work. The levy fixed upon would amount to that sum every week, besides what they would receive from the National Alliance, as well as from other societies. They had, therefore, nothing to fear. In conclusion, he urged those present to obstain from all illegal acts, but to use all moral means to show those who might take their places that they were acting unwisely.—Mr. Brown, of Leeds, in a forcible address, also urged them to be peaceable, and urged the necessity as a matter of justice of the weighing of all coal raised to the pit top, so that they should not be required to give more than 20 cwts. to the ton. In conclusion, he urged them to be unanimous, and determined to support the Union, as the only means of obtaining that justice to which they were entitled, and to beware of not breaking the peace in any way, for if they did not do so they would be serving the cause of the masters more then their own. The proceedings concluded with an enthusiastic vote of thanks to Mr. Brown and Mr. Normansell.

TO RAILWAY COMPANIES, CONTRACTORS, AND OTHERS.

IN LIQUIDATION.

Auction Sale of the Newry and Greenore Railway Plant.

THERE WILL BE SOLD, BY AUCTION, AT NEWRY, IRELAND, commencing on Tuesday, the 23d of March next, at Twelve o'clock, noon, the ENTIRE PLANT of the projected NEWRY AND GREENORE RAILWAY, consisting of 1506 tons of new flange rails, 70 lbs. per yard, with the necessary fish plates, fish bolts, fang bolts, and wood screws; 250 tons of contractors' rails, flange pattern, 41 lbs. per yard, in good order; 331 earth end-tipping wagons; 1492 wood sleepers; 32 contractors' carts, timber wagons, &c.; 262 barrows; 31 sets of chain and cart harness, in excellent condition; striking hammers; quarry sledges; masons' hammers; ballast hammers; quarry picks; sheriff bars; miners' picks; earth picks; miners' and earth pick shafts; hammer shafts; locomotive shovels; rope pulleys; pulley blocks; pump cranks; quarry skips; drums, uprights, and shafts; pumps; blow Georges; covers and blades; air tubing; funnel skips; pile-driving machines; pile-driving rams; water tanks; tool boxes; horse boxes and wash troughs; chaff-cutting machines; oat crushers, bean crushers; grooving and slaking benches; shear legs and machinery; centre rib and bridge centres; elliptical and semi-circular ribs; masons' levels; field gates, rails, ladders, rods, mallets, cart felloes and spokes; sundry mortar hods and boxes, sand screens, tar tanks, grindstones, on stands; wooden hut fittings; smiths and portable bellows, anvils, vices, &c.; tunnel shaft covers and skip trollies; several barrels and cans of best wagon grease; about 1000 planks, &c.; wagon mountings, axles, sheeting, &c.; wood spouting, tressels, and tools; scopes and rakes; horse boxes; a large number of bridles and hand cuffs, temporary dogs, cast-steel jumpers, new and old ropes, signal lamps, chains, iron bolts, weighing machines and screw jacks, equal to new; telegraph construction implements, with a considerable quantity of new and old iron. Also, LOCOMOTIVE and PORTABLE ENGINES; a patent adzing and boring machine; sundry travelling cranes and crab winches; railway punching machines, &c.; with the wooden houses and sheds on the premises.——Catalogues, containing full particulars, with the order of sale, to be had in London, at the office of the MINING JOURNAL; Liverpool, *Liverpool Mercury;* Manchester, *Guardian* Newspaper; Dublin, *General Advertiser;* Glasgow, *North British Daily Mail.*

Any further information may be had on application to—

JOSEPH LOUGHRAN, Auctioneer, Newry.

TO CAPITALISTS AND OTHERS FAMILIAR WITH COPPER MINING.

RICH VEINS OF COPPER ORE (Sulphuret and Grey) have been FOUND on the BANKS of the NIPISIGUIT RIVER, Province of NEW BRUNSWICK. The grey ore yielded on analysis in England 60 per cent. of copper. The veins are from a few inches to 2½ feet wide. The Harbour of Bathurst is but thirteen miles distant, and the tract of the Intercolonial Railway, now in course of construction, about six.

The proprietor of the land, being unacquainted with mining operations, is DESIROUS either TO SELL the PROPERTY on moderate terms, or to JOIN an EXPERIENCED PARTY or COMPANY in WORKING these LODES. Indications of other mineral lodes are to be found at various places within a circuit of 15 to 20 miles, chiefly in wild Crown lands, the right to which might be obtained on easy terms, if early steps be taken with that object, before they attract more general attention.

Further information may be obtained on application to HENRY W. BALDWIN, Esq., Bathurst, New Brunswick.

Bathurst, N.B., 4th February, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL PAR MINING COMPANY.—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before Wednesday, the 17th day of March instant, TO SEND IN THEIR NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to—

WM. MICHELL, Esq., the Registrar of the said Court at Truro.

Dated this 2d day of March, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the WHEAL NORRIS UNITED MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 25th day of February last, presented to the Vice-Warden of the Stannaries by John Clark Isaac, Richard Hawke, Henry Edgcumbe, and Charles Isaac, of Liskeard, in the county of Cornwall, merchants, carrying on business under the style or firm of Isaac, Hawke, Edgcumbe, and Co., creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at No. 18, Thurloe-square, Brompton, in the county of Middlesex, on Wednesday, the 17th day of March instant, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, their solicitors, or their agents of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioners, their solicitors, or their agents, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 13th day of March instant, and notice thereof must at the same time be given to the petitioners, their solicitors, or their agents.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall
(Solicitors for the Petitioners).

GREGORY, ROWCLIFFES, AND RAWLE, 1, Bedford-row, London
(Agents for the said Solicitors).

Dated Truro, March 3d, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the TRUMPET UNITED MINING COMPANY.—By the direction of His Honour the Vice-Warden, Notice is hereby given, that on Wednesday, the 17th day of March instant, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, this Court will PROCEED to MAKE a CALL of ONE POUND PER SHARE on all the contributories of the said company settled under class A.

All persons interested therein are entitled to attend at the time and place to offer objections to such call. WILLIAM MICHELL, Registrar.

Dated Registrar's Office, Truro, 4th day of March, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the TRUMPET UNITED MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN AND PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Wednesday, the 17th day of March instant, at Eleven o'clock in the forenoon, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts, lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.

Dated Truro, the 4th day of March, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the GARLIDNA UNITED MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN AND PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Thursday, the 18th day of March instant, at Eleven o'clock in the forenoon, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.

Dated Truro, the 4th day of March, 1869.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CROWAN CONSOLS MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN AND PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Friday, the 19th day of March instant, at Eleven o'clock in the forenoon, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.

Dated Truro, the 4th day of March, 1869.

GREAT WHEAL FORTUNE MINE, BREAGE, CORNWALL.

SECOND SALE.

VALUABLE MATERIALS AND MACHINERY FOR SALE.

MR. T. T. WHEAR, Auctioneer and Appraiser, Camborne, is favoured with instructions TO SELL, BY PUBLIC AUCTION, on Monday, the 8th day of March, 1869, at Eleven o'clock in the morning, at

GREAT WHEAL FORTUNE MINE,

In the Parish of BREAGE, the WHOLE of the VALUABLE MACHINERY and MATERIALS thereon, viz.:—

A 70 in. PUMPING ENGINE, 8 ft. stroke.

A 40 in. PUMPING ENGINE, 9 ft. stroke, equal beam, with three BOILERS, 30 tons.

A 36 in. cylinder STAMPING ENGINE, 9 ft. stroke, brass lined AIR PUMP, two 10 ton BOILERS, and 2 stamps axles for 16 heads each.

A 24 in. cylinder WHIM ENGINE, 6 ft. stroke, ditto, with 7 ton BOILER, complete.

A 20 in. cylinder WHIM ENGINE, 6 ft. stroke, ditto, with 7 ton BOILER.

6 17 in. 9 ft. pumps.	5 12 in. 9 ft. pumps
3 17 in. 10 ft. ditto.	1 12 in. H piece.
1 17 in. windbore.	1 11 in. top door piece.
41 16 in. 9 ft. pumps.	3 11 in. windbores.
1 16 in. 10 ft. ditto.	2 13 in. 11 ft. pole cases.
2 16 in. matching pieces.	3 11 in. working barrels.
3 16 in. H pieces.	71 11 in. 9 ft. pumps.
2 16 in. top door pieces.	1 11 in. 6 ft. ditto.
1 16 in. knee piece.	1 11 in. clack seat piece.
5 16 in. windbores.	4 10 in. working barrels.
1 16 in. clack seat piece.	1 10½ in. working barrel.
2 16 in. stuffing boxes and glands.	1 10 in. stuffing box and gland.
9 15 in. 9 ft. pumps.	2 10 in. windbores.
1 15 in. 11 ft. ditto.	1 10 in. 12 ft. pump.
3 15 in. 6 ft. ditto.	1 9 in. H piece.
1 15 in. clack seat piece.	18 8 in. 9 ft. pumps.
1 15 in. H piece.	1 8 in. clack seat piece.
2 15 in. top door pieces.	3 7 in. working barrels. gland.
1 15½ in. working barrel.	1 7 in. plunger pole, stuffing box and
2 15 in. ditto.	1 7 in. clack seat piece.
1 15 in. windbore.	2 7 in. windbores.
3 15 in. matching pieces.	1 6½ in. bucket door piece.
2 15 in. stuffing boxes and glands.	1 6 in. working barrel.
8 14 in. 9 ft. pumps.	1 6 in. 9 ft. pump.
1 13 in. plunger pole, stuffing box and gland.	1 6 in. windbore.
	1 5 in. 9 ft. pump.
2 13 in. 9 ft. pumps.	3 pieces 14 in. wood rods.

Shears, 60 ft. high, and capstan at 70 in. engine; 2 balance bobs; 1 angle ditto; Hunt's patent jigging machine; excellent winch, on wheels, for surface work; lifting jack; 1 pair treble blocks, with brass sheives; large brass bell; 1 horse whim and shaft tackle; excellent miners' dry; tube weighing 4½ tons, 54 ft. long; 100 fms. iron stave ladders; several lots of cast and wrought iron, brass, several lots of nails, hilts, sundry chain, various sizes, sheives various, and other materials. Also, about 200 lots of timber.

The Auctioneer, in calling the attention of pursers, managers, mine agents, and the mining public generally to the above important sale, would state that the engines are a valuable lot, and in excellent working condition, and the pitwork and materials generally will be found very superior.

Any further information may be obtained on application to the agent on the mine, or to the Auctioneer.—Dated February 22d, 1869.

VALUABLE IRON WORKS FOR SALE.

MR. JOHN PARSONS has been favoured with instructions TO SELL, BY AUCTION, at the Royal Hotel, Cardiff, on Tuesday, the 9th day of March, 1869, at Twelve for One o'clock, in One Lot, or such lots as may be fixed at the time of sale, the VALUABLE IRON WORKS, ROLLING MILLS, &c., known as the

COLLEGE IRON WORKS,

Near CARDIFF, for some years carried on for the MANUFACTURE of SMALL RAILS AND MERCHANTS' BARS, and capable of being used for the MANUFACTURE of TIN BARS, for which there is at present a great and profitable demand in the immediate locality.

These iron works are situate three miles from Cardiff, stand on three acres of ground, and are most advantageously situated on the Glamorganshire Canal, thus communicating direct with Cardiff Docks, Aberdare, and Merthyr, and by which coals can be delivered at about 6s. 9d. per ton. Llandaff Station is within three quarters of a mile, whilst Walnut Tree Bridge Junction of the Rhymney and Taff Vale Railway is within three miles, thus having direct communication with both the broad and narrow gauge railway systems.

The PLANT and MACHINERY include PUDDLING and HEATING FURNACES, ROLLING MILLS, &c., with the usual appliances. A foreman's house, two cottages, and office are all included.

The tenure is leasehold, the chief portion being held for an unexpired term of 64 years, at a rental of £40, and the remainder for 32 years, at a rental of £12.

The works are in full working order, and may be viewed, and other particulars obtained, on application to Mr. E. DANIEL, Whitchurch, near the works; Mr. JOHN PRICE, Solicitor, 28, Clare-street, Bristol; or of the Auctioneer, Athenæum-chambers, Nicholas-street, Bristol.

SLATE QUARRIES, NORTH WALES.

TO CAPITALISTS.

MESSRS. BARNARD, THOMAS, AND CO. have been instructed by the Executors of the Mortgagee under powers of sale, to SELL, BY AUCTION, at the Clarence Hotel, Manchester, on Tuesday, the 9th day of March, at Three o'clock in the afternoon, in One Lot, and subject to such conditions as will be then and there produced (unless previously disposed of by private contract, of which due notice will be given), the valuable LEASE, PLANT, and MACHINERY of the

WRYSGAN SLATE AND SLAB QUARRIES,

Situate in the well-known FESTINIOG RANGE, and in close proximity to the most successful slate quarries in North Wales.

This property contains about 400 acres, through which the blue vein runs for more than a mile in length and about 50 yards in breadth, and is held under lease for a term of 90 years from the 1st January, 1854, at a dead rent of £100 and no royalty, and to a payment of £50 for way leave over land belonging to Mrs. Gore.

A well-arranged siding and incline have recently been made at an expense of £5000, connecting the quarry with the railway from Festiniog to Port Madoc, the place of shipment, the cost of conveyance being only 3s. per ton.

There are TWO powerful WATER-WHEELS, a STEAM ENGINE, several SLATE TABLES, and other machinery; and the quality of the slates is equal to that of the best in the district.

Further particulars may be had on application to Messrs. HIGSON, Mining Engineers, 94, Cross-street, Manchester; Messrs. HONEY and HUMPHREYS, Accountants, Ironmonger-lane, London; Messrs. BARNARD, THOMAS, and Co., Albion Chambers, Bristol; or to Messrs. J. and H. LIVETT, Solicitors, Albion Chambers, Bristol.—Bristol, Feb. 12, 1869.

THE UNITED PENPOMPREN AND PENYBANK LEAD MINES,

TALYBONT, near ABERYSTWITH, CARDIGANSHIRE.

MR. G. T. SMITH has been instructed by the proprietor to OFFER FOR SALE, BY AUCTION, on Friday, the 12th of March, 1869, on the Mines, at Twelve o'clock, the whole of the remaining

VALUABLE MACHINERY AND MINING PLANT at the ABOVE MINES,

Comprising WATER-WHEEL, 12 feet × 4½ feet, with wrought-iron axle, and cast segments; 750 feet of LAUNDERS to ditto, and stands; 600 fms. WIRE ROPE; 3 cast-iron sheaves, 6 ft. diameter; 10 fathoms 5 inch PUMPS; 100 fathoms round iron PUMP RODS; American atmospheric ORE STAMPS; driving gearing for ditto; one ZENNER'S rotating BUDDLE, with gearing; two round BUDDLES, and 9 feet wheel; WOODEN OFFICE; six JIGGING HUTCHES, with sieves, complete; flat buddle, strakes, slime-trunks, &c.; tackle ropes, 2 balance bobs, 2 pendulum ditto, 500 ft. boards, 1 fan, 1 brass bell, 1 straw cutter, sundry iron, timber, tools, barrows, &c.

N.B.—The Penpompren Mines are situated within three miles of the Cambrian Railway Station, at Llanfihangel.

IMPORTANT SALE OF MINE AND OTHER SHARES.

MR. W. HOSKEN RICHARDS has received instructions from the Trustees of the late R. V. DAVY, Esq., to submit for SALE, BY AUCTION, at his Auction Rooms, Nos. 54 and 55, Causeway-head, Penzance, on Thursday, the 18th March, 1869, at Eleven o'clock in the forenoon, the undermentioned VALUABLE MINE and other SHARES—viz.:

10½	(200ths) in BOTALLACK MINE.
140	(1107ths) in BALLESWIDDEN MINE.
2½	(119ths) in BOSWEDDEN MINE.
37½	(200ths) in NORTH LEVANT MINE.
2½	(242ds) in SPEARN MOOR MINE.
4	(940ths) in ST. IVES CONSOLS MINE.
1	(236th) in SPEARN CONSOLS MINE.
1½	(548th) in TRELYON CONSOLS MINE.
8½	(1024ths) in WHEAL KITTY (Lelant).
10	(728ths) in WHEAL MARGERY.
1½	(80th) in WHEAL OWLES.
1	(1120th) in PROVIDENCE MINES.
17	(656ths) in DING DONG MINE.
2½	(165ths) in LEVANT MINE.
5½	SHARES in the CORNWALL FISHING COMPANY.
3	SHARES in the VICTORIA FISHING COMPANY.
7	SHARES in the RESOLUTE FISHING COMPANY.
2	SHARES in the INDUSTRY FISHING COMPANY.
1	SHARE in the FRIENDS AND DELIGHT FISHING COMPANY.
2	SHARES in the WESTERN FISHING COMPANY.
2	SHARES in the PENBERTH FISHING COMPANY.

Further particulars of the Auctioneer, 54 and 55, Causeway-head, Penzance. Dated 2d March, 1869.

VERY VALUABLE LEASEHOLD COLLIERIES, ABERDARE, GLAMORGANSHIRE.

MESSRS. FULLER, HORSEY, SON, AND CO. are instructed to SELL, BY AUCTION, at the Mart, Tokenhouse-yard, London, E.C., on Wednesday, March 24, at Two o'clock precisely, the very valuable LEASEHOLD COLLIERIES and other MINERAL PROPERTIES of the

ABERDARE MERTHYR STEAM COAL COMPANY
(LIMITED),

Situated at HIRWAIN COMMON, in the parish of ABERDARE, GLAMORGANSHIRE, about two and a half miles from the town of Aberdare, and in direct railway communication with the shipping ports of Swansea, Cardiff, and Newport.

The property comprises numerous SEAMS or VEINS of COAL of the thickness in the aggregate, of 32 ft. 7 in., together with IRONSTONE and FIRE-CLAY, extending under a tract of land of about 624 acres; and there are underlying the entire area NINE VEINS or SEAMS of COAL, known as the Driver Vein, the Upper Four Feet, the Six Feet, the Pit or Yard Vein, the Nine Feet, the Dirty Vein, the Little Vein, the Old Vein, and the Gellideg. The five first named have been worked in these collieries, and the remainder are known to exist, as the last named is worked at Cyfartha. The minerals include the well known "Upper Four Feet," being the celebrated seam of the Aberdare Steam Coal, and the other seams are well known and approved, and are won by levels or drifts, one of which cuts most of the seams; the other works the "Driver Vein" and Upper Four Feet; the roofs are good, the workings free from gas, and a drift has been formed from east to west along the entire range, which effectually drains all workings to a certain level without pumping.

The workings are equal to an out put of from 400 to 500 tons of coal daily, but the quantity at present raised does not exceed 300 tons daily, in consequence of the existing duiness of trade. The ironstone is won with the coal, and at the present rate of working 150 tons per month are raised. The quality is good, equal to from 33 to 35 per cent.

The collieries have been opened under careful supervision, and the whole of the plant and appliances are of the best order. The new drift is worked by two powerful horizontal steam-engines, with steel wire-ropes and winding gear, the trams are conveyed on a trolly or wagon down a new self-acting incline, having two lines of permanent rails, about 680 yards long, from the mouth of the pit to the sidings of the railway

The long range level is worked in a similar way.

The coals are passed through self-registering screens, of the most approved modern construction, into the railway trucks. The cost of the coals, including royalties and all mining charges, does not average more than 5s. 4d. per ton.

The buildings include steam-engine house, range of stone-built stables for 40 horses, saddlers' shop, hay and chaff store, offices for manager and clerks, carpenters' shop, two smiths' shops, small brick lodge, sheds over incline, drums and coal screens, weigh house, wheelwrights' shop, store room, ventilating shaft and furnace. There are two reservoirs on the side of the mountain, fed by natural springs, that afford a plentiful supply of good water for the purposes of the colliery.

The present company have expended upwards of £50,000 in the purchase and development of this property. The whole of the seams are now being worked at adjoining collieries, and have been thoroughly proved, and their character and value ascertained, by the present manager, who has also, from a recent survey, ascertained the exact quantity of unworked coal; indeed, the colliery may not inaptly be termed, as to most of the seams, a maiden colliery; and as the coal can be cheaply won, with ordinary management, a most remunerative purchase may be made by those seeking investment. Held under leases, which may be seen at the offices of the solicitors.

The works may be inspected on application to Mr. THOMAS DAVIES, the manager, at the works. Particulars, with plans and other information, may be obtained of Messrs. MINET and SMITH, Solicitors, 3, New Broad-street, London, E.C.; and of Messrs. FULLER, HORSEY, SON, and Co., Auctioneers, 11, Billiter-square, E.C.

Particulars and plans may also be had at the principal hotels at Cardiff, Newport, Swansea, Liverpool, and Manchester; and at the Auction Mart, London.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

RAILWAY WAGON WORKS, BARNSLEY.

MESSRS. G. W. AND T. CRAIK
ARE PREPARED TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by deferred payments through wagon-leasing companies.

WAGONS PROMPTLY REPAIRED.

TANK LOCOMOTIVES,

FOR SALE OR HIRE.
HENRY HUGHES AND CO.,
LOUGHBOROUGH.

THE BEVERLEY IRON AND WAGON COMPANY

(LIMITED),
MANUFACTURERS OF RAILWAY WAGONS, WHEELS
AXLES, LORRYS, CARTS, WOOD WHEELS, &c.,
IRONWORKS, BEVERLEY, YORKSHIRE.

WIRE ROPE TRANSPORT.

THIS SYSTEM is applicable to the TRANSPORT of MINERALS, of AGRICULTURAL PRODUCE, and of MERCHANDISE in general. Its cost per mile is less than that of any known description of road or way, commencing at £250 per mile. It can be carried over any description of country without more engineering work than is necessary in constructing a telegraph line. It is admirably suited for establishing BRANCH GOODS LINES and EXTENSIONS in NEW COUNTRIES. Its working cost little exceeds that of regular railways, and is not one-third that of the common road transport. A line of three miles can be seen in operation. M. BEALE, Secretary.
The Wire Tramway Company, 21, Gresham-street, E.C.

RAILS FOR SIDINGS, &c.,

Of DOUBLE-HEAD, FLANGE, and BRIDGE SECTIONS,
CHAIRS, FISH-PLATES, AND POINTS AND CROSSINGS,
COLLIERY RAILS for underground and tramways,
In stock, for prompt delivery, by
ROBERT WRIGHTSON, IRON MERCHANT
NEWPORT, MONMOUTHSHIRE.

COLLINGE'S PATENT SPONGE CLOTHS,

FOR CLEANING STEAM ENGINES, EVERY DESCRIPTION OF MACHINERY, LAMPS, WINDOWS, &c., &c.
Being a woven fabric, they are easily washed, say 20 times, consequently do not cost one-fourth the price of cleaning waste.
TRADE ALLOWANCE MADE TO DEALERS, FACTORS, AND AGENTS.
Samples and prices upon application to—
DANIEL COLLINGE AND SON,
1, PEEL STREET, MANCHESTER.

MINING INSTRUMENTS.

JOHN DAVIS,
MANUFACTURER OF MINING AND SURVEYING INSTRUMENTS,
DERBY.
MAKER (by appointment) of HEDLEY'S DIALS.
Price List on application.
STERNE'S PATENT PNEUMATIC SPRINGS FOR COAL CAGES.
Price £8 10s. per set of four.

TO COLLIERY PROPRIETORS.

UPWARDS of 6000 LARCH, 4000 OAK POLES, 100 OAK and OAK PLANKS upwards of 20 feet long; ELM COAL-PIT RINGS, ready cut, in stock.
All kinds of ENGLISH TIMBER supplied in the round, and OAK and LARCH SCANTLING cut to sizes for railway and coal-wagon building.
Dealer in all kinds of BRITISH TIMBER.
MILLWRIGHTS, ENGINEERS, COACH BUILDERS, WHEELWRIGHTS, &c., supplied on the most reasonable terms.
JAMES ATKINSON,
No. 63, GRANBY ROW, MANCHESTER.

GENERAL MINING COMPANY FOR IRELAND

(LIMITED).

MAKERS OF ZINC OXIDE.

OFFICES,—29, WESTMORELAND STREET, DUBLIN
MINES AND WORKS, SILVERMINES, COUNTY TIPPERARY.

The Directors beg to intimate to PAINT and COLOUR MAKERS, INDIA RUBBER MANUFACTURERS, SHIPPERS, and the TRADE generally, that they have COMPLETED the ERECTION of WORKS for the MANUFACTURE of ZINC OXIDE, and that they are now producing ZINC WHITE of GREAT EXCELLENCE and PURITY.
Samples and terms shall be forwarded on application.
H. C. FOWLER, Secretary.
29, Westmoreland-street, Dublin, December 10, 1868.

MILNER'S STRONG HOLDFAST AND FIRE-RESISTING SAFES,

CHESTS, DOORS, AND STRONG ROOMS,
With the progressive and recent improvements effected after half a century's experience, effectually guard against FIRE and BURGLARS.
LIVERPOOL, MANCHESTER, SHEFFIELD, LEEDS, HULL, and
47A, MOORGATE STREET. CITY, LONDON.

ASSAY OFFICE AND LABORATORY,

No. 2, CROWN CHAMBERS, CROWN COURT,
THREADNEEDLE STREET,
CONDUCTED BY W. T. RICKARD, F.C.S., &c.
(Late MITCHELL and RICKARD).
Assays and analyses of every description of mineral and other substances manures, &c.
Gentlemen going abroad for mining purposes instructed in assaying, and the most improved methods of reducing gold, silver, and other metals.
MINING PROPERTIES INSPECTED AND REPORTED ON.

Now ready, price 2s.,

THE NORTH SOMERSETSHIRE COAL FIELD.—

BY SEWARD W. BRICE, B.A.
OPINIONS OF THE PRESS.—"A work of great practical value to all interested in the development of a great South England Coal Field."—*Mining Journal.*
"The task of estimating the quantity of coal still remaining in the North Somersetshire Coal Field is very difficult. Here we have a very troubled field of geological enquiry, and of great perplexity and expense to the coal miner. Mr. Brice understands his subject, and his style of writing is clear and interesting."—*Colliery Guardian.*
London: BEMROSE and LOTHIAN, 21, Paternoster-row; or post free from the *Gazette* Office, Tiverton.

HOGG'S GUIDE TO THE IRON TRADES.—

Fourth edition, eighth thousand, price 10s.
This popular Treatise, revised and improved, contains a series of tables on weight and measurement of metals, stone, and timber; gross and net sectional areas of angle-irons; strength of materials; Government chain and anchor tests; tests of iron and steel from different makers; boiler making, forging, iron rolling, cog-wheel pattern making, moulding, &c. Also articles on girder making, pile driving, and all matters connected with practical engineering and smiths' work, verified in most cases by the actual experience of the author.
Orders to be sent to JOSEPH HOGG, Sandwell Road, West Bromwich, Staffordshire.

Now in the Press.

A MINING ATLAS, DESIGNED TO CONVEY COMPLETE INFORMATION CONCERNING THE CHIEF MINING DISTRICTS IN GREAT BRITAIN AND THE UNITED STATES OF AMERICA.

BY THOMAS SPARGO,
GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.
The work contains surface plans showing the geological formation of tht various districts, and longitudinal and transverse sections of some of the mose important mines in the United Kingdom, with observation upon their position, character, and working. Geological and parish maps of Cornwall, Devon, Cardiganshire, and the Isle of Man, showing height of hills, &c., have been prepared with the greatest care. Maps intended to illustrate the progress of mining in North America have been executed with great fulness and punctilious exactitude. A map of the United States and territories shows the divisions of each, with the mining districts of Nevada, Colorado, Idaho, New Mexico, Wisconsin, and the line of railways connecting the Atlantic and Pacific. Mr. Whitney, Commissioner for the Union to the Paris Exhibition, prepared a map of the great mining region of Colorado for the occasion, and has presented the plates to the author, for this work. A surface map of California shows the position of the mines in that great mining region.
The work will embrace explanatory notes, definitions, and illustrations of mining terms—such as shaft, level, cross-cut, sink, stope, end, rise, pitch, &c.
The work will contain upwards of fifty maps, plans, and sections.
Price, 10s.; by post, 10s. 6d.

ESTABLISHED MORE THAN HALF A CENTURY.

THE TAVISTOCK FOUNDRY, IRONWORKS, AND HAMMER MILLS,

which have been carried on for more than half a century by
MESSRS. GILL AND CO.,
and obtained a
HIGH REPUTATION FOR
SHOVELS AND OTHER TOOLS
as well as for
ENGINEERING AND FOUNDRY WORK,
have been purchased by
MESSRS. NICHOLLS, MATHEWS, AND CO.,
BEDFORD IRONWORKS, TAVISTOCK.

For thirty years Messrs. NICHOLLS, MATHEWS, and Co., have been the proprietors of the latter works, but have now removed to the

TAVISTOCK FOUNDRY,

where, having the advantage of a never-failing stream of water of upwards of 200-horse power, they will have increased facilities for speedily and satisfactorily executing all orders entrusted to their care.
Manufacturers of STEAM ENGINES and BOILERS, on the newest principle; pump work, brass and iron; hammered iron shafts, of all sizes; miners' steel and iron tools.
N., M., AND CO. have had a LARGE EXPERIENCE in PREPARING MACHINERY for FOREIGN MINES, as well as selecting competent mechanics to erect the same.
N., M., AND CO. have always a LARGE STOCK of SECOND HAND MATERIALS.

IMPROVED APPLICATION OF WATER POWER.

THE TURBINE.

MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, after twenty years of experience, have brought their IMPROVED TURBINE to great perfection.
It is applicable to all practicable heights of fall, giving much greater power from the water than any other kind of water-wheel.
On low falls it has the great advantage of not being impeded by floods or backwater.
It is particularly well adapted for situations where the quantity of water is variable, and where all other wheels fail.
Its motion is extremely regular, and, when desired, a governor can be applied effectively.
This wheel is at work in a great many places, to which reference will be given.

W. H. LANYON,

(Late of Kennall Gunpowder Company)
GUNPOWDER MERCHANT,
TRURO.

DYNAMITE, OR NOBEL'S PATENT SAFETY BLASTING POWDER.

DYNAMITE is the SAFEST and most POWERFUL BLASTING COMPOUND in general use. Accidents are almost impossible, as it is only exploded by a strong percussion cap. It will not explode from a spark or concussion. If set fire to, it burns quietly and harmlessly away, without smoke or any explosion. Prepared in cartridges for mines and underground workings. Sold by—
WEBB AND CO., CARNARVON,
Sole consignees in England from the Patentee and Manufacturer.

WILLIAM HANN AND SON beg to offer to SUPPLY COLLIERY OWNERS, and the public generally, with their PATENT SAFETY LAMPS,

Which have been proved INEXPLOSIVE in the highest obtainable current of gas, of 48 ft. per second. No. 1 weighs 24 ozs., is simple in its construction, burns with a steady and nearly uniform flame in moderate currents, gives a good light, and is in every respect a practicable lamp. Price, 9s. each; if in quantities of a dozen or upwards, 8s. 6d. each, delivered free. Orders received by—
WILLIAM HANN AND SON,
HETTON COLLIERY, FENCE HOUSES.

WILTON'S MATHEMATICAL INSTRUMENT ESTABLISHMENT REMOVED from St. Day to A. JEFFERY'S, CAMBORNE.

W. H. WILTON begs to thank his friends for their very liberal support for so many years, and informs them that he has now declined business in England in favour solely of Mr. A. JEFFERY, MATHEMATICAL INSTRUMENT MAKER, CAMBORNE, whom he considers (having been an assistant to his father for several years) is in every way capable of creditably maintaining the good name universally awarded to Wilton's instruments.

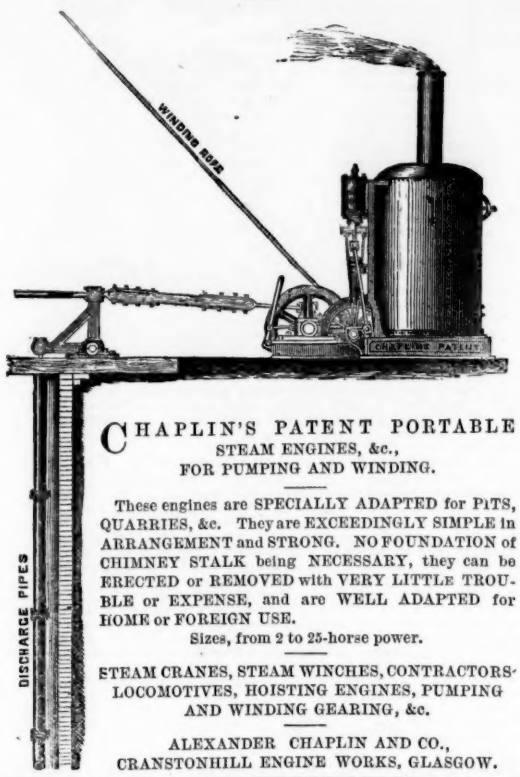
A. JEFFERY

Respectfully begs to inform Mine Managers, Surveyors, Engineers, &c., that having purchased Mr. Wilton's business, and the very valuable acquisitions and appliances belonging thereto, he has enlarged his Mathematical Instrument Manufactory, and is prepared to supply THEODOLITES, DIALS, POCKET DIALS, LEVELS, TRAVERSING and PLAIN PROTRACTORS, CASES OF DRAWING INSTRUMENTS, MEASURING CHAINS AND TAPES, ASSAYERS' SCALES and WEIGHTS, ENGINE COUNTERS, and, in short, every description of Instruments used in SURVEYING, MEASURING, MAPPING, &c.
Repairing in all its branches promptly attended to.

HESLOP AND WILSON,

IRON, METAL, AND GENERAL MERCHANTS, AND ENGINEERS,
40, DEAN STREET, NEWCASTLE-ON-TYNE.
EVERY DESCRIPTION of MACHINERY, ENGINEERS' TOOLS, &c. Portable and stationary ENGINES. MILLS, PUMPS, TURBINES, PATENT FANS, AGRICULTURAL MACHINERY, and IMPLEMENTS, STEEL TYRES, RAILS, &c.
COLLIERY STORES—Ropes, Spun Yarn, Waste, Leather, Shovels, Picks, Nails, Chain, Bar-iron and Plates, &c. Solid Cast-steel Sinkers' Hammers and Picks. Brass and Iron Tubes, Nuts, Bolts, Rivets, &c.
ESTIMATES, DESIGNS, TRACINGS.
Price-book on application.

Prize Medal—International Exhibition, 1862.



CHAPLIN'S PATENT PORTABLE STEAM ENGINES, &c.,

FOR PUMPING AND WINDING.

These engines are SPECIALLY ADAPTED for PITS, QUARRIES, &c. They are EXCEEDINGLY SIMPLE in ARRANGEMENT and STRONG. NO FOUNDATION of CHIMNEY STALK being NECESSARY, they can be ERECTED or REMOVED with VERY LITTLE TROUBLE or EXPENSE, and are WELL ADAPTED for HOME or FOREIGN USE.
Sizes, from 2 to 25-horse power.

STEAM CRANES, STEAM WINCHES, CONTRACTORS' LOCOMOTIVES, HOISTING ENGINES, PUMPING AND WINDING GEARING, &c.

ALEXANDER CHAPLIN AND CO.,
CRANSTONHILL ENGINE WORKS, GLASGOW.

JOHN AND EDWIN WRIGHT,

PATENTEES.
(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED
PATENT FLAT AND ROUND WIRE ROPES,
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
CITY OFFICE No. 5, LEADENHALL STREET, LONDON, E.C.

Swan Rope Works.

GARNOCK BIBBY, AND CO.,

CHAPEL STREET, LIVERPOOL,
MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.
WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.
MARTYN DENNIS AND CO., LIVERPOOL,
Sole agents for Cornwall.

AS A PROOF OF THE SUPERIORITY OF THE THRASHING MACHINERY MANUFACTURED BY

CLAYTON, SHUTTLEWORTH, AND CO.,

They beg to call attention to the following statement:—

	ENGINES.	MACHINES.
Engines and Machines sent out in the year 1868	812	644
Total Number sent out up to December 31st, 1868	8921	7982

The Gold Medal was awarded them at the Paris Exhibition, 1867, for Portable Engines and Thrashing Machines; and at the last trial of the Royal Agricultural Society they gained EVERY FIRST PRIZE offered for Steam Engines, also the Prize of £15 for Finishing Thrashing Machine, and Silver Medal for special improvements. On which occasion the following firms, amongst others, competed: Messrs. Ransomes and Sims, Tuxford and Sons, Reading Iron Works Company (Limited), Brown and May, Allchin and Son, Barrows and Carmichael, Humphries, Marshall, Sons, and Co. (Limited), Burrell, Ruston, Proctor, and Co., Roby and Co. (Limited), Holmes and Sons, E. R. and F. Turner, P. and H. Gibbons, Tasker and Sons, Nalder and Nalder, Riches and Watts, Wallace and Haslem, Catchpole and Thompson, &c., &c.
NOTE.—The Royal Agricultural Society will not hold another trial of Portable Steam Engines and Thrashing Machines until the year 1872.

CLAYTON, SHUTTLEWORTH, AND CO.,

STAMP END WORKS, LINCOLN; and
78, LOMBARD STREET, LONDON.
Catalogues and every information forwarded post free.

HEATON'S PATENT.

THE LANGLEY MILL STEEL & IRONWORKS COMPANY

(LIMITED),
LANGLEY MILL, NEAR NOTTINGHAM,
Are now making Cast-Steel suitable for Tools, Taps, Dies, Chisels, &c., &c., Shear Steel, and Iron of a very superior quality, by their direct process, under the superintendence of the Patentee.
The range of quality which this process secures renders the Steel and Iron suitable for almost every purpose to which these metals can be applied. Also, CAST-STEEL CASTINGS of all kinds from PATTERNS or DRAWINGS.

ORMEROD, GRIERSON, & CO.,

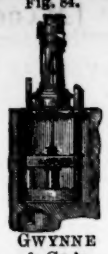
ST. GEORGE'S IRONWORKS, HULME, MANCHESTER,
Have the largest assortment in the Trade of PATTERNS,
SPUR WHEELS, BEVEL WHEELS, MITRE WHEELS.
WITH TEETH CUT BY MACHINERY. Also,
FLY WHEELS, DRIVING PULLEYS, AND DRUMS
CAN BE SUPPLIED BORED AND TURNED, IF REQUIRED.
CATALOGUES ON APPLICATION.
ALSO, MANUFACTURERS OF BLAST ENGINES, COLLIERY AND ALL OTHER DESCRIPTIONS OF STATIONARY ENGINES AND BOILERS, MILL GEARING, &c.

Fig. 86.

GWYNNE & Co.'s IMPROVED CHAIN-PUMP,
Worked direct by Steam-Engine.

These pumps work without valves or packing, and raise a considerable quantity of water. They will lift sand, mud, or grit without choking, and require only very inexpensive repairs.

Fig. 84.

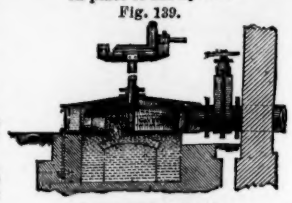


GWYNNE & Co.'s DOUBLE-ACTING PUMPING-ENGINE.
As supplied to the Admiralty Graving Docks, Malta, to lift from 200 to 2000 gallons per minute. The engine is of inverted vertical cylinder construction. The pump barrel and piston are of gun-metal, and the whole very strong and compact.

Fig. 106.

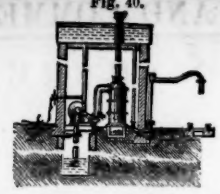
GWYNNE & Co.'s IMPROVED PLUNGER HAND PUMP.
A very neat and extremely compact arrangement; will work for years without getting out of order. These pumps are peculiarly adapted for mines, for which great numbers have been supplied in situations where no other pump could be applied for want of space. They are equally adapted for use as feed-pumps, by driving them with strap from a rigger in place of the fly-wheel.

Fig. 139.



GWYNNE & Co.'s IMPROVED TURBINE WATER-WHEEL.
Compact, easy to erect, economical, simple, and perfectly adapted to all situations. Made of every power from 1 to 300 horse. These turbines are adapted for every class of work. Prices on receipt of particulars.

Fig. 40.



GWYNNE & Co.'S PATENT COMBINED STEAM-PUMP,
As Applied to Railway Stations.
The vertical boiler supplies the engine with steam, the pump discharging the water lifted from the well into the tank above, whence it may be drawn as occasion requires, for feeding locomotives, washing the carriages, as a fire-engine, &c.
Estimates given.

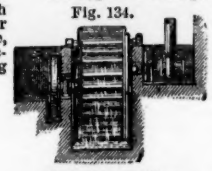
Fig. 142.

GWYNNE & Co.'S IMPROVED PORTABLE STEAM-ENGINE.
Light, simple in construction, durable, and economical, and very superior to "agricultural" engines. From 2½ to 30 horse power.

Fig. 43.

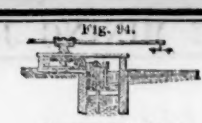
GWYNNE & Co.'S PATENTED WIND-POWER PUMPING MACHINERY.
Designed for Drainage and Irrigation Purposes
Suitable also for supplying the mansions of noblemen or gentlemen. Works continuously day and night without attention. Made from ⅛ to 20 horse power.

Fig. 134.



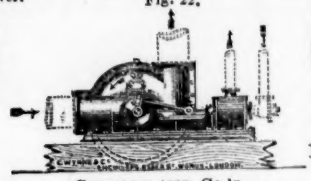
GWYNNE & Co.'S PATENT WATER POWER PUMPING MACHINERY.
Extremely useful wherever water-power is available. The centrifugal pump is worked by gear from the water-wheel. Suitable for supplying country mansions with water. No expense when once fitted. Made of all powers.

Fig. 94.



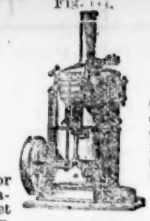
GWYNNE & Co.'S IMPROVED PULLOCK OR HORSE POWER PUMPING MACHINERY.
For situations where steam, water, or wind power are not available. Portable, easy to erect, and not liable to get out of order. From 1 to 6 horse power.

Fig. 22.



GWYNNE AND Co.'S COMBINED STEAM-ENGINE AND PATENT CENTRIFUGAL PUMP.
Small and powerful, low in cost, economical in work. No skilled labour required. Inexpensive foundations. First Prize Medal awarded at Paris last year for this arrangement.

Fig. 111.

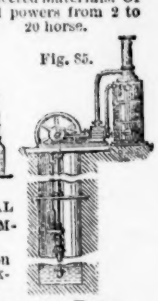


GWYNNE & Co.'S IMPROVED VERTICAL STEAM-ENGINE.
Occupies little space, compact, safe, and easy to work. Made from the very best selected materials. Of all powers from 2 to 20 horse.

Fig. 116.

GWYNNE & Co.'S IMPROVED HORIZONTAL HIGH-PRESSURE STEAM-ENGINE.
With or without expansion gear, for economical working. From 4 to 100 h. p.

Fig. 85.



GWYNNE & Co's IMPROVED DEEP WELL PUMP.
Worked direct by steam-engine at the mouth of the well. This arrangement is invaluable in situations where, from peculiar circumstances, the centrifugal pump is inapplicable.

Large and fully Illustrated Catalogues sent on receipt of 12 postage stamps

TWELVE PRIZE MEDALS, taken at the Exhibitions of the Principal Cities of the World, TESTIFY TO THE GREAT EXCELLENCE OF THIS MACHINERY.

GWYNNE AND CO. have recently effected a considerable reduction in their prices, being determined to supply not only the BEST but the CHEAPEST PUMPING MACHINERY in the WORLD.

☞ TO PREVENT MISTAKES, PLEASE ADDRESS IN FULL—

GWYNNE AND CO.,

HYDRAULIC AND MECHANICAL ENGINEERS, ESSEX STREET WORKS, STRAND, LONDON, W.C.

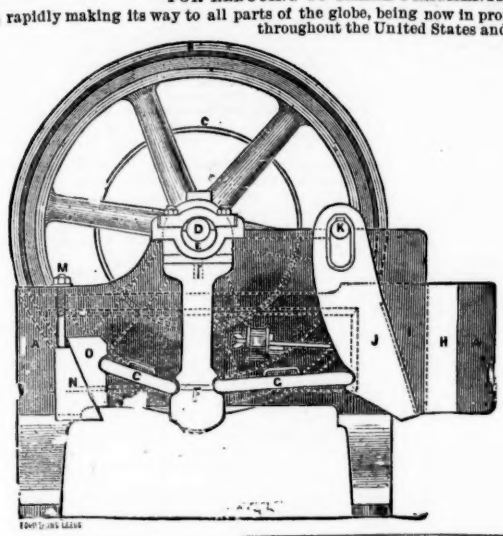
IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, McADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw s about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
H. R. Marsden, Esq. — THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly,—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON,
Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.
JOHN LANCASTER.

Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,

MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

CAUTION!

BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

SOLE MAKER IN ENGLAND,

H. R. MARSDEN, SOHO FOUNDRY, MEADOW LANE, LEEDS.

MUSHET'S

TITANIC CAST STEEL,

FOR

BORERS, ROCK-DRILLING MACHINES, LATHE TOOLS, DRILLS, CHISELS, TAPS AND DIES, &c., &c. SOLID CAST-STEEL HAMMERS AND SLEDGES, FILES, &c.

SOLE MANUFACTURERS,

TITANIC STEEL AND IRON COMPANY, LIMITED,

COLEFORD, GLOUCESTERSHIRE.

AGENTS FOR SCOTLAND,—
Messrs. JOHN DOWNIE AND CO., 1, ROYAL BANK PLACE, GLASGOW.
Where useful samples may be obtained.

PATENT FLEXIBLE TUBING,

AND BRATTICE CLOTH FOR MINES
MANUFACTURED BY

ELLIS LEVER,

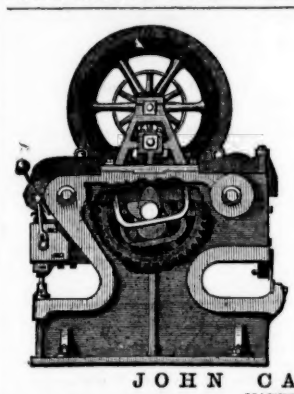
WEST GORTON WORKS, MANCHESTER.

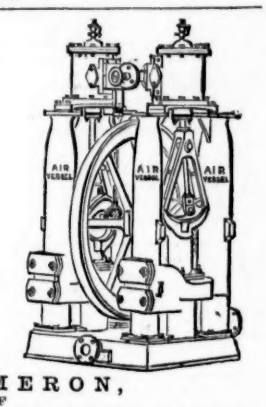
BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION, in Paris, 1867.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.





JOHN CAMERON,

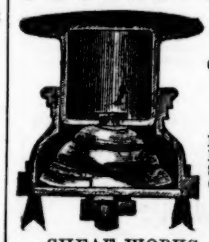
MAKER OF

STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS, BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING MACHINES, PATENTEE OF THE DOUBLE CAM LEVER PUNCHING MACHINE, BAR SHEARS, AND RAIL PUNCHING MACHINES,

EGERTON STREET IRON WORKS,
HULME, MANCHESTER.

THOMAS TURTON AND SONS,

MANUFACTURERS OF



CAST STEEL for PUNCHES, TAPS, and DIES, TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and FORGINGS of EVERY DESCRIPTION.

DOUBLE SHEAR STEEL, BLISTER STEEL, SPRING STEEL, GERMAN STEEL,	FILES MARKED T. TURTON EDGE TOOLS MARKED WM. GREAVES & SON

Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.
Where the largest stock of steel, files, tools, &c., may be selected from.

HEPBURN'S PUMP LEATHER WATERPROOF

By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

I. AND T. HEPBURN AND SONS,
TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE MANUFACTURERS,
LONG LANE, SOUTHWARK, LONDON.
Prize Medals, 1851, 1855, 1862, for
MILLBANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES.

HEALTH AND MANLY VIGOUR.—A Medical Man, of Twenty Years' experience in the treatment of Nervous Debility, Spermatorrhœa, and other affections which are often acquired in early life, and unfit sufferers for marriage, and other social duties, has published a book giving the FULL BENEFIT of his LONG EXPERIENCE, GRATIS, with plain directions for the recovery of health and strength. A single copy sent to any address on receipt of one stamp.
Address to the "Secretary," Institute of Anatomy, Birmingham.

Just published, post free for two stamps.

DR. WATSON (of the LOCK HOSPITAL), F.R.A.S., Member of the College of Physicians and Surgeons, on the SELF-CURE of NERVOUS and PHYSICAL DEBILITY, Lowness of Spirits, Loss of Appetite, Timidity, Incapacity for Exertion, &c., with means for perfect restoration. Free for 2 stamps by Dr. WATSON, No. 1, South-crescent, Bedford-square, London. Consultations daily from 11 till 2, and 5 till 8; Sundays, 10 till 1.
N.B.—RECENT CASES OF INFECTION CURED IN A FEW DAYS.

Just published, post free for one stamp,

WONDERFUL MEDICAL DISCOVERY, showing the true causes of Nervous, Mental, and Physical Debility, lowness of Spirits, Indigestion, Want of Energy, Premature Decline, with plain directions for perfect restoration to health and vigour in a few days,
WITHOUT MEDICINE.
Sent free on receipt of one stamp, by W. HILL, Esq., M.A., Berkeley House, South-crescent, Russell-square, London W.C.

Grand Prix—Paris Exhibition, 1867.

SHAFT SINKING

THROUGH WATER-BEARING UPPER STRATA,

WITHOUT USE OF PUMPING MACHINERY.

CHAUDRON'S PATENT SYSTEM is successful, even in cases previously abandoned on account of overpowering volumes of water.

EXPENDITURE REDUCED BY EIGHTY PER CENT.

No leakages, no repairs. Agents wanted.

HENRY SIMON, C.E., MANCHESTER.

TO ENGINEERS, AND OTHERS.

TO BE SOLD, BY PRIVATE TREATY.

MESSRS. ORMEROD are willing to DISPOSE OF their PATENT RIGHT in the

PATENT SAFETY LINK,

FOR THE PREVENTION OF ACCIDENTS BY OVERWINDING, &c.

The PATENT SAFETY LINK is extensively in operation in many of the largest collieries, and has been the means of preventing several accidents.

For terms, and to treat for the same, apply to—

MR. EDWARD ORMEROD, CHOWBENT, NEAR MANCHESTER.

SAFE INVESTMENT.

CHINA-CLAY WORKS IN CORNWALL.—The proprietors of well laid out and advanatgeous works, in full operation, with an established and profitable market for the clay, are desirous of EFFECTING an IMMEDIATE SALE of the WHOLE, or a PORTION, upon very favourable terms.

Satisfactory reasons for selling, and full particulars given, on application to "China-Clay," Post Office, Plymouth.

TO LET, A VALUABLE COAL MINE.—Apply to Mr. GEORGE DAVIDSON, Mawley, Cleobury Mortimer, Shropshire.—Dec. 12, 1868.

TO BE LET, a SLATE AND SLAB QUARRY, with PLANT, and good water power. Distance—by good road from a shipping port, 3½ miles; from a railway station, 2½ miles.

As a speculation, offering quick returns from a small outlay, this can confidently be recommended.

For further particulars, and to view the premises, apply to Mr. ROBERT OWEN JONES, Land Agent, Pwllheli, North Wales.

ELLENBOROUGH COLLIERY, NEAR MARYPORT.

TO BE LET, for a term of 21 years, from June 1, 1869, the COAL MINES under the MANOR OF ELLENBOROUGH, comprising THREE HUNDRED AND FIFTY ACRES, or thereabouts.

The coal field is in full working order, by means of shafts sunk to the Ten-quarter Seam, and by drifts and staple-pits to three other very excellent seams of coal.

The colliery is within a very short distance of the port of Maryport. The coal is shipped at a small nominal cost; it is taken over the estate by means of private tramways to the docks, thereby giving it great advantages at market in point of cheapness, compared with all other coal in the neighbourhood.

There is a considerable quantity of coal adjoining the above manor, which, by arrangement, can be worked by means of shafts in Ellenborough Manor, as has been done hitherto.

The works are substantial and permanent, and the colliery is equal to a large output, and, in addition to an excellent trade with Ireland, it has a good land sale business.

Iron works are now established close to Maryport, in addition to those at Workington, five miles off, thus giving an excellent market close at hand both for coal and coke.

It is seldom that such a thoroughly good commercial undertaking can be met with, all being in good order and ready for work, at a comparatively small outlay of capital.

For further particulars, apply to Mr. JAMES THOMSON, Nether Hall, Maryport.

ASSAYS AND ANALYSIS.—MR. JOSEPH GREEN, for the past eighteen years professional Assayer to the Chester Goldsmiths' Company, UNDERTAKES the ASSAYING and ANALYSIS of EVERY DESCRIPTION of MINERAL.

ASSAY OFFICE, CHESTER.

MR. THOMAS THOMAS, ASSAYER, &c.,
COPPER ORE WHARVES, SWANSEA.

MR. HENRY HOCKING, ASSAYER,
PHILLIPS' PARADE, BRUNSWICK STREET, SWANSEA.

Assays of all kinds of Copper Ores, Pyrites, &c., &c., by Cornish dry assay.
Gold Quartz, Argentiferous, Iron, Manganese, Zinc, or other Ores or Minerals, assayed or analysed at the shortest notice.

MR. M. MORGANS (late of the Brendon Hills Spathose Mines), CONSULTING ENGINEER, is prepared to REPORT on MINERAL PROPERTY, DESIGN and ESTIMATE for new ENGINEERING WORK, or to undertake the efficient working of MINES, ENGINES, PUMPS, &c., by periodical inspection, on moderate terms. Twenty-eight years' practical experience in managing large collieries and mines, railway construction, erecting mining machinery, rolling mills, furnaces, &c.

OFFICES,—MANSION HOUSE, OLD PARK, BRISTOL, and No. 15, HIGH STREET, NEWPORT, MONMOUTHSHIRE.

WILLIAMS'S PERRAN FOUNDRY COMPANY, PERRANARWORTHAL, CORNWALL.

MANUFACTURERS of STEAM PUMPING and EVERY OTHER KIND of ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery.

London Agent.—Mr. EDWARD COOKE, 76, Old Broad-street, London, E.C.

STAFFORDSHIRE WHEEL AND AXLE COMPANY (LIMITED),

MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION of RAILWAY ROLLING STOCK.

OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.
LONDON OFFICE,—118, CANNON STREET, E.C.

RAILWAY CARRIAGE COMPANY (LIMITED.
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED) MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.

EDMUND FOWLER, Sec.

WAGON WORKS,—SMETHWICK, BIRMINGHAM.

*** Loans received on Debenture; particulars on application.

London Agent—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR MACHINERY of every description for WOOD and IRONSTONE, CORN-CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.

PROPRIETOR,—G. HARLE, JUN.,

No. 49, MAPLE STREET, NEWCASTLE.

PURCHASERS of PORTABLE ENGINES and STEAM CRANES will do well to ask G. HARLE'S price for the same.

BRITANNIA LIFE ASSURANCE AND INVESTMENT COMPANY

(LIMITED).

CHIEF OFFICE,—1, LANCASTER PLACE, STRAND, LONDON.

This company has inaugurated a NEW PLAN of POPULAR ASSURANCE for miners, by forming a MINERS' SICK AND ACCIDENT FUND.

Policies will be issued without respect to age at a uniform quarterly premium of 5s.

Managers of mines and other public works are earnestly requested to appoint correspondents in each of their districts for enrolling members.

Apply, for further information, to PERCIVAL HINDMARSH, Secretary.

BRITISH, COLONIAL, AND FOREIGN PATENTS REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.

MICHAEL HENRY,

Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventors' Almanac," and the Author of the "Defence of the Present Patent Law,"

PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

Mr. HENRY has had especial experience in technical French, and in French Manufacturing and Commercial Matters.

Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars-street.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, *c*, Cheshire*	10 0 0	—		10 6 8	0 5 0	Jan. 1869
200	Botallack, *t. c*, St. Just	91 5 0	200	200 250	528 5 0	10 0 0	Feb. 1869
4000	Brookwood, *c*, Buckfastleigh	1 11 0	—		0 12 6	0 2 6	Aug. 1868
1000	Bronfloyd, *l*, Cardigan*	12 0 0	19	16¾	10 17 0	0 10 0	Jan. 1869
5094	Bwich Consols, *s-l*, Cardigan	4 0 0	—		0 5 0	0 5 0	June 1868
6400	Cashwell, *l*, Cumberland*	2 10 0	—		0 3 0	0 1 6	Aug. 1868
916	Cargoll, *s-l*, Newlyn	15 5 7	—		15 15 0	0 10 0	Jan. 1869
1280	Chanticleer, *l*	0 7 8	—		0 1 0	0 0 6	Nov. 1868
2450	Cook's Kitchen, *c*, Illogan‡	19 14 9	14	14 15	1 17 0	0 5 0	Jan. 1869
509	Creegbrawse and Penkevil, *t*	—	—		2 5 0	1 5 0	April 1868
867	Cwm Erfin, *l*, Cardiganshire	7 10 0	—		29 13 0	0 10 0	Jan. 1869
128	Cwmystwith, *l*, Cardiganshire	60 0 0	—		385 10 0	2 0 0	Feb. 1869
280	Derwent Mines, *s-l*, Durham	300 0 0	—		177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, *c*, Tavistock†	1 0 0	310		1124 0 0	4 0 0	Jan. 1869
656	Ding Dong, *t*, Gulval‡	49 14 6	—		0 10 0	0 10 0	Sept. 1867
358	Dolcoath, *c*, *t*, Camborne	128 17 6	500	500 550	874 10 0	0 10 0	Feb. 1869
6144	East Caradon, *c*, St. Cleer†	2 14 6	8½	8⅜ 8⅝	14 11 6	0 2 0	July 1867
300	East Darren, *l*, Cardiganshire	32 0 0	—		164 10 0	2 0 0	Feb. 1869
128	East Pool, *t*, *c*, Pool, Illogan	24 5 0	—		452 10 0	5 0 0	Jan. 1869
1906	East Wheal Lovell, *t*, Wendron	3 9 0	9½	9 10	4 11 6	0 10 0	Jan. 1869
2800	Foxdale, *l*, Isle of Man*	25 0 0	—		72 10 0	0 10 0	Jan. 1869
5000	Frank Mills, *l*, Christow	3 18 6	4	3⅝ 3⅞	3 9 6	0 4 0	Feb. 1869
3850	Gawton, *c*, Tavistock	3 10 6	—		0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, *l*, Isle of Man*	4 0 0	19½	19 20	9 15 0	0 10 0	Dec. 1868
3000	Great Northern Manganese*	5 0 0	—		—	5 p.ct.	Feb. 1869
5908	Great Wheal Vor, *t*, *c*, Helston†	40 0 0	15½	15½ 16½	13 16 0	0 5 0	Dec. 1868
1024	Herodsfoot, *l*, near Liskeard†	8 10 0	45	43 45	49 10 0	1 10 0	Feb. 1869
165	Levant, *c*, *t*, St. Just	10 8 1	—		1099 0 0	4 0 0	Jan. 1869
400	Lisburne, *l*, Cardiganshire	18 15 0	—		512 0 0	1 10 0	Jan. 1869
3000	Maes-y-Safn, *l*, Flint*	20 0 0	—		4 0 0	0 5 0	Oct. 1868
9000	Marke Valley, *c*, Caradon	4 10 6	9	8¾ 9	4 19 0	0 5 0	Jan. 1869
3000	Minera Boundary, *l*, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. *l*, Wrexham*	25 0 0	—		248 13 6	5 0 0	Feb. 1869
20000	Mining Co. of Ireland, *c*, *l*, *cl*	7 0 0	11¾	11½	—	9 p.ct.	July 1868
40000	Mwyndy Iron Ore*†	3 5 0	—		0 11 6	0 3 0	Feb. 1869
200	Parys Mines, *c*, Anglesey*	50 0 0	—		162 10 0	2 10 0	Aug. 1868
5000	Penhalls, *t*, St. Agnes	3 0 0	5½		0 2 6	0 2 6	Jan. 1869
12800	Prince of Wales, *t*, Calstock	0 12 6	1¼	24s. 26s.	0 8 6	0 1 0	Nov. 1868
1120	Providence, *t*, Uny Lelant†	10 6 7	38	38 40	86 12 6	1 0 0	Dec. 1868
512	South Caradon, *c*, St. Cleer†	1 5 0	380		607 10 0	5 0 0	Jan. 1869
6000	South Darren, *l*, Cardigan*	3 6 6	—		0 14 6	0 1 6	Feb. 1869
937	South Wh. Crofty, *c*, Illogan	24 10 10	14		1 10 0	0 10 0	Feb. 1869
496	So. Wh. Frances, *c*, Illog.†‡	18 18 9	18	15 17½	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, *l*, Mold	3 18 6	—		2 5 6	0 5 0	Feb. 1868
6000	Tincroft, *c*, *t*, Pool, Illogan†	9 0 0	18	18 19	20 11 0	0 10 0	Mar. 1869
2000	Trumpet Cons., *t*, Helston	11 10 0	20	17 20	8 0 0	0 10 0	Jan. 1869
3000	W. Chiverton, *l*, Perranzabuloe†	10 0 0	54	51 53	33 7 6	2 0 0	Feb. 1869
5000	West Godolphin, *t*, *c*, Breage	0 1 0	—		0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, *c*, Camborne†	47 0 0	210	200 210	622 0 0	6 0 0	Feb. 1869
512	Wheal Basset, *c*, Illogan†	5 2 6	71	70 75	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, *c*, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, *s-l*, Kea	10 15 0	50	45 50	21 0 0	2 0 0	Feb. 1869
4295	Wheal Kitty, *t*, St. Agnes	5 4 6	4¼	4¼ 4½	3 13 0	0 2 0	Nov. 1868
1024	Wheal Mary Ann, *l*, Menheniot†	8 0 0	21	19 20	66 17 6	0 17 6	Dec. 1868
80	Wheal Owles, *t*, St. Just‡	70 0 0	—		403 3 0	52 10 0	Feb. 1868
396	Wheal Seton, *t*, *c*, Camborne	58 10 0	75	70 75	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—		1 0 0	0 10 0	Dec. 1867
17000	Wicklow, *c*, *i*, Wicklow	2 10 0	12		49 1 0	0 5 0	Oct. 1868

FOREIGN DIVIDEND MINES.

25000	Alamillos, *l*, Spain*†	2 0 0	2	1½ 2	0 4 6	0 2 0	Sept. 1868
20000	Australian, *c*, South Australia†‡	7 7 6	—		0 1 6	0 0 6	Aug. 1868
15000	Cape Copper Mining*†	7 0 0	—		3 17 6	0 15 0	Nov. 1868
30000	Central American Association*†	1 10 0	—		—	—	
76162	Don Pedro North del Rey*†‡	0 14 0	4⅝	4⅜ 4⅝	1 0 3	0 3 6	Nov. 1868
70000	English and Australian, *c*‡	2 10 0	—		—	0 9	Feb. 1869
25000	Fortuna, *l*, Spain*†	2 0 0	2		1 11 10	0 2 6	Sept. 1868
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	—		23 10 0	0 15 0	June 1867
10000	Gonnesa, *l*,*	5 0 0	—		10 per cent.		Aug. 1868
68000	Kapunda Mining Co., Austra†‡	1 0 0	—		0 1 10	0 0 6	Nov. 1868
15000	Linares, *t*, Spain*†	3 0 0	3¼		11 15 0	0 3 4	Sept. 1868
50000	Panulcillo, *c*, Chili*†	3 0 0	—		10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	100 0 0	—		—	—	
10000	Pontgibaud, *s-l*, France†	20 0 0	12		5 6 2	0 19 7	Dec. 1868
100000	Port Phillip, *g*, Clunes†	1 0 0	1	1	1 1 6	0 1 6	Jan. 1869
120000	Scottish Australian Min. Co.†	1 0 0	1	1	10 per cent.		Nov. 1868
11000	St. John del Rey, Brazil*†	15 0 0	20½	17¾ 18	81 10 0	4 5 0	Dec. 1867
4000	Swedish Sulphur Ore*	2 10 0	—		7½ per cent.		Dec. 1868
13500	Vancouver Coal Mining*†‡	6 0 0	7½	7½ 8½	2 2 6	0 12 0	Nov. 1868
50000	Victoria (London) [25000 £1 pd.,	25000 12s. 6d. pd.]			0 9 7	0 0 7	July 1868
40000	West Canada Mining Co.*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, *s*, Argentine Republic*	1 0 0	—		
100000	Anglo-Brazilian, *g*†	0 10 0	3/8	½	Nov. 1866
12500	Anglo-Italian, *g*†‡	0 10 0	5/8		Jan. 1868
20000	Australian United, *g*	1 0 0	—		Mar. 1868
2464	Burra Burra, *c*, South Australia‡	5 0 0	—		
20000	Capula, *s*, Mexico*†	1 17 6	1⅜		May 1868
30000	Chontales, *g*, *s*, Nicaragua*†	5 0 0	1¼	1 1¼	Mar. 1868
12000	Cobre Copper Company, *c*, Cuba†‡*	45 10 0	—		Jan. 1868
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	—		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd.,	150 £70 pd.]			Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, *g*, New Granada*†	1 17 6	½	12s. 14s.	May 1868
150000	General Brazilian*	0 10 0	½	⅜ ½	Feb. 1869
80000	Great Northern, *c*, South Australia†	1 11 6	—		Sept. 1862
50000	Javali, *g*, Nicaragua	2 0 0	—		Jan. 1869
7927	Lusitanian (Portugal)†‡	2 15 0	—		Dec. 1866
83640	Mariquita, *g*, *s*, New Granada	1 0 0	—		Feb. 1868
12500	Nerbudda Coal and Iron, India*†	6 0 0	3		Dec. 1867
51000	New Quebrada, *c*, Venezuela*†	4 4 0	—		
80000	Pestarena United, *g*, Italy*†	2 17 6	1½	1¼	
10178	Rhenish Consolidated, *l* [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, *g*, Brazil*†	0 14 0	1½		June 1867
15000	San Pedro del Monte, *s*, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, *l*, Spain	5 0 0	—		Fully pd.
50000	Sao Vicente, Brazil*†	0 4 0	¾	5s. 7s.	Oct. 1868
100000	Taquaril, *g*, Brazil*	0 7 6	—		Oct. 1868
43174	United Mexican, *s*, Mexico†‡*	28 5 2	2	1¾ 2	May 1868
30000	Val Antigoria, *g*, Italy*	1 2 6	2		
6000	Val Sassam, *s*, *c*, *l*, Italy*†	8 0 0	—		Aug. 1868
45000	Victor Emanuel, *c*, Italy*	1 0 0	—		Fully pd.
20000	Washoe, *g*, Nevada†	5 0 0	—		Fully pd.
80000	Worthing, *c*, South Australia*†	1 0 0	3/8	¼ 3/8	Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—	⅛ ¼	Fully pd.
45000	Yudanamutana, *c*, South Australia*†‡	3 0 0	2⅛	1⅞ 2⅛	Fully pd.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
12000	Brynpostig, Montgomery, *l**	1 0 0	—		
1000	Carn Brea, *c*, *t*, Illogan‡	30 0 0	20	19 21	June 1868
6000	Chiverton, *l*, Perranzabuloe	11 0 0	3½	3½ 3¾	Nov. 1868
6000	Chiverton Moor, *l*, Perranzabuloe	7 0 6	4½	4½ 5	Feb. 1869
1880	Clifford Amalgamated, *c*, Gwennap‡	40 17 6	—		Oct. 1868
12800	Drake Walls, *t*, Calstock‡	2 10 0	1	1 1⅛	Jan. 1868
512	East Basset, *c*, Redruth†‡	37 0 0	7	5 7	Nov. 1868
6000	East Carn Brea, *c*, Redruth‡	4 6 0	3/8		Feb. 1869
6000	East Grenville, *c*, Camborne	4 4 0	4	4⅜ 4⅝	Feb. 1869
4000	East Wheal Russell, *c*, Tavistock†	13 13 6	—		Oct. 1868
6144	Gonamena, *c*, St. Cleer	7 14 3	—		Feb. 1869
5000	Great North Downs, *c*, Redruth	6 13 0	—		Feb. 1867
4800	Great Retallack, *s-l*, *b*, Perranzabuloe	2 19 6	2½		Oct. 1868
5143	Great South Tolgus, *c*, Redruth	1 10 6	3/8		Dec. 1868
1798	Great Wheal Fortune, *t*, Breage	31 7 4	—		Mar. 1868
6000	Hingston Down, *c*, Calstock†	5 12 0	—		Dec. 1868
400	New Wheal Seton, *c*, Camborne	63 0 0	75	70 80	Jan. 1869
3457	North Downs, *c*, Redruth	5 8 10	—		Jan. 1868
695	North Roskear, *c*, Camborne	61 19 0	—	1¾ 2¼	Jan. 1869
5936	North Treskerby, *c*, St. Agnes	1 13 10	7/8	16s. 18s.	Feb. 1869
3000	North Wheal Chiverton, *l*, Perranzabuloe	5 0 0	—		Feb. 1869
1024	Rose and Chiverton United, *l*, Newlyn	6 10 0	—	6⅛ 6¾	Jan. 1869
6138	South Conqurrow, *t*, *c*, Camborne	4 10 6	1⅛	1⅛ 1¼	Feb. 1869
1000	South Merilyn, *t*, Flint	1 0 0	—		
940	St. Ives Consols, *t*, St. Ives‡	10 15 0	17½	17 20	Nov. 1867
920	Stray Park, *c*, *t*, Camborne†‡	45 5 8	—	8 9	April 1868
1000	West Basset, *c*, Illogan†‡	2 0 0	—		May 1868
1024	West Caradon, *c*, St. Cleer†‡	25 0 0	3	2¼ 2¾	Nov. 1868
12800	West Drake Walls, *c*, Calstock	0 7 6	3/8	3/8 ½	Jan. 1869
2582	West Great Work, *t*, Breage	5 11 0	3	2¾ 3	June 1866
6000	West St. Ives, *t*, *c*, St. Ives	0 3 6	—	¼ 3/8	Oct. 1868
512	West Wheal Frances, *t*, Illogan	106 15 0	50	48 51	
5000	West Wheal Kitty, *t*, St. Agnes	3 4 0	—	6s. 8s.	Nov. 1868
6000	Wheal Agar, *c*, Illogan	7 15 0	1¼	1⅛ 1¼	Jan. 1869
512	Wheal Buller, *c*, Redruth†‡	29 10 0	8	10 12	Feb. 1869
811	Wheal Emily Henrietta, *c*, Illogan	20 15 0	22		Jan. 1869
5724	Wheal Grenville, *c*, Camborne†	10 10 0	2¼	2⅛ 2⅜	Dec. 1867
1040	Wheal Trelawny, *s-l*, Liskeard†	10 7 0	8½	8 9	Dec. 1868
4096	Wheal Uny, *t*, *c*, Redruth	10 14 6	3⅞	4¼ 4½	Oct. 1868

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4000	Ballacorkish, I. of Man, *l*, *c**	4 0 0	—		
4000	BedfordConsols, *c*, Tavistock	3 0 6	—		5/8 ¾
4000	Bedford United, *c*, Tavist.*	2 17 8	—		1¼ 2
1248	Boscaswell, *t*, *c*, St. Just	7 6 0	—		
5000	Bottle Hill, *t*, Plympton	1 14 6	—		
12000	Bradda, *c*, *l*, Isle of Man*	1 10 0	—		
5000	Bryn Gwiog, *l*, Flint	0 18 0	—		
1200	Bryn Gwyn, *l*, Mold*‡	9 0 0	—		
7500	Brynystwith, *l**	1 10 0	—		
1000	Budnick Consols, *c*	2 5 0	—		1 1⅛
6000	Bwadrain Cons., *s-l*, Cardig.	3 2 0	—		
40000	Caldbeck Fells, *l*, Cumberld.*	1 17 6	—		
1000	Camborne Consols, *c*	11 10 0	—		
11000	Cape Cornwall, *t*, *c** [8000 £2 10s. pd., 3000 25s. pd.]				
5000	Capel Banhaglog, *l*, Mont.*	2 0 0	—		
914	Caradon Consols, *c*, St. Cleer	32 13 6	—		
1000	Cardynham China-clay*	3 0 0	—		
6000	Carn Camborne, *c*, Cambrn.	2 10 6	—		
20000	Carysfort [3200 £2½ pd., 16800 £1 ½ pd.]				
16000	Central Snailbeach *l**	1 0 0	—		
3000	Chiverton Valley, *l*, Perranz.	2 0 0	—		
2048	Colquite & Callington Un., *c*	1 3 0	—		2½ 2¾
256	Condurrow, *c*, *t*, Camborne‡	76 10 0	—		
50000	Connorree, *c*, *s-l*, Wicklow*	1 0 0	—		
983	Copper Hill, *c*, Redruth‡	12 10 0	—		
1000	Cornwall Hematite Co.*	5 0 0	—		
1055	Craddock Moor, *c*, St. Cleer‡	14 6 0	—		
12000	Crelake, *c*, Tavistock	3 12 0	—		
6000	Cuddra, *t*, St. Austell	5 10 0	—		
300	Cwm Darren, Cardigan*	—	—		42½
5000	Dolwen, *l*, Cardiganshire	0 10 0	—		
740	Eaglebrook, *l*, Talybont*	19 15 0	—		
1000	East Basset and Grylls, *t*	3 5 0	—		
4000	East Chiverton, *l*, Perranz.	3 6 3	2		
4000	E. Gunnislake & S. Bed. *c*	11 1 6	—		
6000	East Laxey, *l*, Isle of Man	3 0 0	—		
4096	E. New Wh. Lovell, *t*, Wend.	0 5 0	—		6s. 9s.
3986	East Providence, *t*, Lelant	—	—		
5000	E. Rosewarne, *c*, *t*, Gwinear	2 19 0	—		
6000	East Snaefell, *l*, I. of Man*	3 0 0	—		
5610	East Seton, *c*, Camborne	0 16 6	—		
2000	East Trumpet, *c*, *t*	1 15 0	3		
6000	East Wheal Reath, Lelant	—	—		1⅛ 1⅜
6000	Ebury Lead Min. Co., Flint*	2 10 0	—		
1026	Garden, *c*, Morvah	6 15 3	—		
6000	Gen. Min. Co. for Ireland, *c*	5 10 0	—		
40000	Glasgow Caradon, *c** [30,000 £1 p., 10,000 15s. p.]				
10000	Glan Alun, *l*, Mold*	0 12 0	3/8	⅛ 5/8	
5700	Goginan, Cardigan, *l*	12 10 0	—		
486	Grambler & St. Aubyn, *c*‡	74 0 0	—		
10000	Great Cwmsymlog, *s-l**	1 15 0	—		
2866	Great Caradon, *c*, St. Ive	4 5 9	¾		
12500	Gt. No. Laxey (Isle of Man)*	1 0 0	—		29s. 31s.
6000	Great N. Telgus, *c*, Illogan	1 0 0	—		
15000	Great Rhosesmor, *l*	5 0 0	—		
4096	Great Royalton, *t*	0 7 6	—		⅛
6000	Gt. S. Chiverton, *s-l*, Perranz	2 0 0	2		1¾ 2
6000	Great Western, *t*	2 0 0	2½		2½ 2⅝
3313	Gt. Wh. Baddern, *t*, Devoran	7 17 6	—		
119	Great Work, *t*, Germoe	100 0 0	—		
10240	Gunnislake (Clitters'), *t*, *c*	4 19 0	—		
6068	Gwydyr Park, *l*, Llanrwst	1 11 0	—		
6400	Harwood, *l*, Durham*	0 7 6	—		
5000	Ironmasters' Company*	10 0 0	—		
1019	Leeds and St. Aubyn, *t*, *c*	19 13 4	—		
1000	Llywernog, *l*, Cardiganshire	13 0 0	—		
5120	Lovell Consols, Wendron, *t*	0 6 0	1		¾ 1
6000	Maudlin, *c*, Lostwithiel	4 7 0	—		
6000	Mid-Wales, *l*,*	2 10 0	—		
4662	Minera Union, *l* [2500 £4 pd., 2162 £2 5s. pd.]				
1000	Montgomeryshire, *l*, *b**	3 0 0	—		
640	Mount Pleasant, *l*, Mold	4 0 0	—		
1024	Nangiles, *t*, *c*, Kea	33 12 0	12		
1500	New Chiverton, *l*, Perranz.	1 4 6	—		
6000	New Clifford, *c*, Gwennap*	3 0 0	—		
6400	N. Crow Hill, *l*, St. Stephen	3 6 6	—		
6514	New E. Russell, *c*, Tavistock	0 12 6	—		
20000	New Gt. Cons., *c*, Tavistock*	1 0 0	—		
6400	New Pembroke, St. Blaz. *t*, *c*	1 12 0	—		
6000	New Westminster, *l*	6 0 0	—		5
4096	New Wh. Lovell, *t*, Wendron	1 19 6	3¼		2¾ 3
2000	N. Wh. Towan, *c*, *t*, Wendron	1 10 0	—		
5000	No. Dolcoath, *c*, Camborne	4 3 0	—		
1361	No. Grambler, *c*, Redruth	9 3 9	—		
6000	North Jane, *t*, *s-l*, Kenwyn	3 6 0	3/8		
2000	North Levant, *t*, *c*, St. Just	10 12 0	11½		11 11½
4000	No. Phœnix, *c*, Linkinhorne	4 11 0	—		
3240	North Pool, *c*, Illogan	6 3 6	—		
1024	No. Retallack, *c*, Perrazabuloe	2 0 0